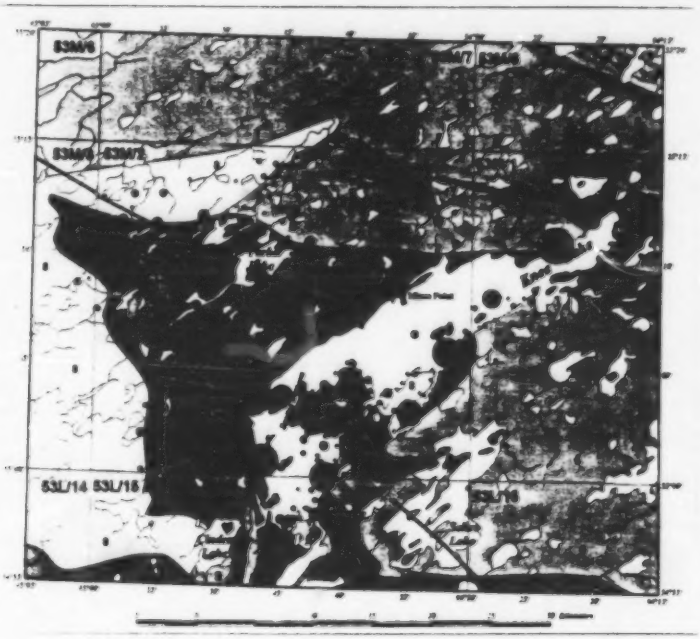
OF2001-5

Operation Superior: Kimberlite Indicator Mineral Survey Results (2000) for the Northern Half of the Knee Lake Greenstone Belt, Northern Superior Province, Manitoba (NTS 53M/1, 2, 3, 7 and 53L/15)



By
M.A.F. Fedikow,
E. Nielsen,
G.G. Conley
and P.G. Lenton

Manitoba
Industry, Trade
and Mines

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Regional distribution of total kimberlite indicator mineral (KIM) grains.

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NTS area(s): 53M/1, 2, 3, 7 and 53L/15

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Manitoba
Industry, Trade
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Geological Survey

Open File Report OF2001-5

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by M.A.F. Fedikow, E. Nielsen, G.G. Conley and P.G. Lenton
Winnipeg, 2001

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INTRODUCTION

In 1996 the Manitoba Geological Services Branch (now the Manitoba Geological Survey) embarked upon a five-year program of helicopter- and fixed wing-assisted multimedia geochemical and mineralogical sampling. The program, called Operation Superior, was designed to assist in the definition of exploration targets and the assessment of mineral resource potential in the greenstone belts of the northern Superior Province. Preliminary results for the areas surveyed in 1996, 1997, 1998 and 1999 were released in Fedikow and Nielsen (1997) and Fedikow et al. (1997a, b, 1998, 1999, 2000).

A unique opportunity to assess the diamond potential in the northern Superior Province of Manitoba was made possible with the cooperation of DeBeers Canada Exploration Inc. Eleven-litre pails of till collected at each sampling site were concentrated, mineralogically picked and microprobed by DeBeers laboratories to provide mineral chemistry for classification purposes. Sample locations were withheld from DeBeers until release of the open file report to ensure security and equal opportunity for follow-up by all interested parties in the exploration community. This approach permitted diamond potential to be assessed throughout the 1996–2000 Operation Superior survey areas that under normal circumstances would have been too costly for the Manitoba Geological Survey to undertake.

This open file departs from the previous Operation Superior releases in that the results of kimberlite indicator mineral (KIM) surveys are normally reported along with rock, a- and b-horizon soil, till and vegetation geochemical data. This report presents the results of KIM survey data generated in year five (2000) of Operation Superior (Fig. 1). It is being released separately in advance of the full multimedia database, in response to the current record levels of diamond exploration activity in east-central Manitoba. At the time of writing, 21 companies had taken out a total of 68 permits covering 30 178 km^2. A report summarizing Operation Superior kimberlite indicator mineral survey results for 1996–2000 is currently underway and is expected to be released in June of 2001.

METHODOLOGY

Bulk till samples were collected on approximately 1 km centers or as dictated by access to landing sites using a float-equipped helicopter (Bell Jet Ranger 206B). The procedure at each site was to establish, by way of hand augering, the location from which a till sample was to be collected. Once appropriate material was located, a till pit was dug to a depth that was sufficient to retrieve an unoxidized c-horizon till. Sample site locations were plotted on air photos while viewing the sites from the helicopter subsequent to sample collection. An eleven-litre pail (20–25 kg) of glacial till was collected from each sampling site and these samples were shipped to DeBeers Canada Exploration Inc. for processing. A small number of modern beach sands were also collected for analysis.

DATA DISPLAY

Mineralogical data for year 2000 samples are presented in table format with site identification, UTM coordinates (Zone 15, NAD83), mineral chemistry and indicator mineral counts. The variation in the numbers of KIMs identified in each sample is presented as bubble plots produced using ARCVIEW GIS software, digitized sample locations and analytical data.

Users will note that simplified geology of the northern Knee Lake area is presented on the bubble plots. This geology was derived from a digital version of the 1:1 000 000 bedrock map of the province (Map 79-2) and the 1:250 000 Bedrock Geology Compilation Map Series. The UTM coordinates for sample sites are derived from 1:50 000 topographic maps. Sample numbers can be derived by overlaying the mylar sample site location map (in back pocket) on the bubble plots.

KIMBERLITE INDICATOR MINERAL SURVEY—YEAR 2000

Minerals such as garnet, chromite, ilmenite and diopside in glacial sediments have been used as kimberlite indicators. Specifically, the chemistry of these grains has been used to imply their mode of occurrence in diamonds as inclusions or in kimberlites (cf. Dawson and Stephens, 1975; Gurney, 1984). All recognized kimberlite indicator minerals are chemically stable in immature glacial sediments.

Garnets have received considerable attention as kimberlite indicators and have been chemically classified according to their relevance as kimberlite indicator minerals. Calcium-depleted diamond inclusion chrome pyropes have been termed G10 (Gurney, 1984; Dawson and Stephens, 1975). They indicate a harzburgitic peridotite origin and are more closely associated with diamonds than are the garnets of lherzolitic origin, which are termed G9. Eclogitic garnets, with Na_20 concentration of greater than 0.09%, have been observed as inclusions in diamonds and also represent valuable indicator minerals.

Diamond inclusion chromites with Cr_20_3 greater than 60% are considered to be kimberlite indicator minerals, equal in significance to G10 garnets. They are interpreted to represent sampling of diamond-bearing zones in the mantle by kimberlite magmas. High-Mg ilmenite are interpreted to reflect the reduced conditions that are necessary for the preservation of diamonds as the magma ascends through the crust. Kimberlite-hosted ilmenite generally has MgO concentrations of 4 to 15 wt % and greater than 2% Cr_20_3. Chrome diopside with greater than 1% Cr_20_3 has been utilized as a useful kimberlite indicator mineral (Morris et al., 1998).

Sample collection

An eleven-litre pail of glacial till was collected from each sampling site where appropriate material was encountered. These samples were shipped to DeBeers Canada Exploration Inc. at the end of the 2000 sampling program for processing.

Sample preparation and analysis

This paraphrased description of sample preparation and analysis was supplied by DeBeers Canada Exploration Inc. The eleven-litre samples were screened at 2.0 mm, with the oversize discarded except for a representative aliquot of the +2.0 to 5.6 mm fraction, which is used for pebble counts. The <2.0 mm size fraction was passed over a 0.3 mm aperture sieve and the <0.3 mm size fraction was discarded. The 0.3 mm to 2.0 mm size fraction was then concentrated by gravity separation, dried in ovens and sieved into 1.0 to 2.0 mm, 0.5 to 1.0 mm and 0.3 to 0.5 mm size fractions, which were packaged, labeled and shipped to DeBeers Canada Exploration Inc. laboratories for further treatment.

These three size fractions were individually separated using the heavy liquid bromoform (Specific Gravity: 2.86). The heavy fractions that sink through the bromoform were washed, sorted and picked for kimberlitic indicator minerals. Picked indicator minerals were then analyzed for geochemical composition by microprobe.

Preliminary interpretation of the 2000 kimberlite indicator mineral survey

The general geology and sample locations for the 2000 kimberlite indicator mineral survey in the northern half of the Knee Lake greenstone belt are provided in Figure 2a. Figure 2b (in back pocket) is a sample location mylar overlay. Guidelines for mineral classification are presented in tables 1 and 2.

The chemistry of KIMs microprobed and classified for this study is summarized in Table 3 and kimberlite indicator mineral abundances by sample site are listed in Table 4. Field boundaries for garnets and chrome spinel discriminant diagrams are from Gurney (1984; Fig. 3) and Fipke et al. (1995; Fig. 4, 5), respectively. Figure 6, a diagram depicting the parabolic relationship of Cr_2O_3 and MgO in ilmenite, is derived from the work of Haggerty (1975). Haggerty and Tompkins (1983) recognized the value of ilmenite compositions in determining the redox state of the earth's mantle and Gurney and Moore (1993) illustrated the potential for predicting diamond preservation in a kimberlite on the basis of ilmenite composition. Kimberlite indicator mineral abundances for the northern Knee Lake Belt are presented in Table 5.

Results

Total KIM abundances are plotted in Figure 7. Figures 8 through 13 are bubble plots for individual kimberlite indicator minerals throughout the 2000 survey area. These plots represent KIMs from the combined 1.0 to 2.0 mm, 0.5 to 1.0 mm and 0.3 to 0.5 mm size fractions of the sample. It is important to note that bubble plots for KIM data include all sites at which a sample was collected. To gain a true appreciation for the significance of these geographic distributions and clustering, these maps should be viewed using the mylar overlay depicting all multimedia sample locations (Fig. 2b in back pocket).

In the 2000 KIM survey samples, 5 KIM grains were recovered in the 1.0 to 2.0 mm size fraction, 86 grains were recovered in the 0.5 to 1.0 mm size fraction, and 435 grains were recovered in the 0.3 to 0.5 mm size fraction. Unlike the results from the 1998 survey no original surface remnants were observed on any of the kimberlite indicator mineral grains. This includes kelyphite and perovskite mantles on ilmenite and original surface remnants on chrome diopside grains.

Figure 7 presents total kimberlite indicator mineral abundances for the 2000 survey area. There are relatively few sites that are marked by large numbers of KIMs. These include sites 21, 32, 68, 103, 150, 166 and 175. It is important to note that sites 21, 32, 103, 150 and 175 are beach sands whereas sites 68 and 166 are till samples.

Highly elevated abundances of chrome spinel grains in the 2000 survey area (Fig. 8) are observed at site 21 where 63 grains were identified. Additionally, multiple chrome spinel grains were documented from sites 32 (12 grains), 150 (11 grains) and 68 (10 grains). Only one diamond inclusion spinel was identified in this year's survey. This grain occurs at site 35, just west of the Second Narrows (Fig. 8). Single grains of chrome diopside were identified from sites 103, 156 and 177 (Fig. 9). Titanium-chrome pyrope garnet grains are generally concentrated in samples collected in the area south of the Second Narrows. Five grains were documented from site 32 and 2 from site 103 (Fig. 10). The distribution of G9 garnets also appears to be concentrated in the area south of the Second Narrows. Fourteen G9 garnets were identified from site 32 and 5 grains were documented from site 103. Additional multigrain sites for G9 garnets are present north of the Second Narrows and along the northeastern shore of Knee Lake (Fig. 11). The distribution of G10 garnets (Fig. 12) is characterized by 8 individual sites with single G10 garnet grains. Two G10 garnets were identified at site 150 along the northeast shore of Knee Lake as well as single grains at sites 144 and 166. Magnesian ilmenite grains are concentrated at sites 32 (18 grains), 21 (12 grains), 103 (8 grains), and 6 grains at site 175 at the Second Narrows (Fig. 13).

Interpretation

Figure 14 is a schematic diagram illustrating the general trend and limits of the distribution of total KIMs identified from the survey results in 2000. Preliminary inspection would suggest a well-defined KIM dispersal trend aligned parallel to the direction of the last ice advance at approximately 235°. However, more detailed examination of the data suggests that this dispersal trend is not that well defined. The following constraints on interpretation should be noted:

1. The eastern edge of the dispersal pattern is not defined due to a lack of sampling sites;
2. The western edge of the trend coincides with a change in till composition and geomorphology marked by a transition from fluted till in the western part of the study area to non-fluted till in the east. Variations in till composition associated with fluted terrain have been observed in the Geraldton area (Thorleifson and Kristjansson, 1993) where fluted till exhibits a higher concentration of far-travelled carbonate debris that dilutes the signature of local

bedrock and results in lower KIM abundances. If this same relationship holds true in the Knee Lake area, then the dispersal trend could also be open to the west. Low concentrations of KIM in this area could reflect a change in till composition rather than the edge of a dispersal fan.

3. Samples containing the highest concentrations of KIM within the dispersal trend were collected from modern day beaches along the northeast arm of Knee Lake. Natural concentration of heavy minerals in beach sands acted to preconcentrate KIM, resulting in higher abundances in beach sands than in tills in the same area. This, plus sampling locations focused along the northeast arm of the lake, which trends parallel to the last ice advance, have exaggerated the apparent trend of KIM distribution in the same direction.

CONCLUSIONS

1. The absence of original surface remnants on the KIM grains suggests some distance of transport and therefore a KIM source northeast of the 2000 survey area.
2. The 2000 kimberlite indicator mineral survey has delineated a northeast-trending dispersal pattern that is parallel to the last ice advance at approximately 235° azimuth. This trend represents a northern extension of the trend identified in the 1999 open file report (Fedikow et al., 2000) for the southern Knee Lake area.
3. The dispersal trend identified in the northern portion of the Knee Lake Belt in 2000 is based upon a significantly higher number of KIMs than the dispersion trend identified in the southern portion of the belt. However, five of the seven sites with the highest KIM abundances are beach sands collected along the northeast arm of Knee Lake that trends parallel to ice flow. This may have exaggerated the apparent trend of KIM distribution in this direction.
4. The eastern boundary of the trend is approximate due to a lack of samples in this area.
5. The western edge of the trend coincides with a change in till composition and geomorphology marked by a transition from fluted till in the western part of the study area to non-fluted till in the east. The heavily fluted, drumlinized terrain to the northwest is characterized by very few KIMs and low concentrations of KIM in this area could reflect a change in till composition rather than the western edge of the dispersal trend. Non-drumlinized till, on the basis of significantly elevated numbers of kimberlite indicator minerals, represents the preferred sampling medium for diamond exploration in this area.

ACKNOWLEDGMENTS

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REFERENCES

Dawson, J.B. and Stephens, W.E. 1975: Statistical classification of garnets from kimberlite and associated xenoliths; Journal of Geology, v. 83, no. 5, p. 589-607.

Fedikow, M.A.F. and Nielsen, E. 1997: Multimedia geochemical signatures of precious and base metal depositional environments, Max Lake area, northern Superior Province; Manitoba Energy and Mines, Manitoba Mining & Minerals Convention '97: Program, p. 35 (abstract).

Fedikow, M.A.F., Nielsen, E., and Conley, G.G. 1997a: Operation Superior: 1996 multimedia geochemical data from the Max Lake area (NTS 63I/8, 9 and 53L/5, 12); Manitoba Energy and Mines, Geological Services, Open File Report OF97-1, 34 p. and 1 diskette.

Fedikow, M.A.F., Nielsen, E., Conley, G.G., and Matile, G.L.D. 1997b: Operation Superior: multimedia geochemical survey results from the Echimamish River, Carrot River and Munro Lake greenstone belts, northern Superior Province, Manitoba (NTS 53L and 63I); Manitoba Energy and Mines, Geological Services, Open File Report OF97-2, 1500 p. and 2 diskettes.

Fedikow, M.A.F., Nielsen, E., Conley, G.G., and Lenton, P.G. 1998: Operation Superior: multimedia geochemical survey results from the Edmunds Lake and Sharpe Lake greenstone belts, northern Superior Province, Manitoba (NTS 53K); Manitoba Energy and Mines, Geological Services, Open File Report OF98-5, 403 p. and 1 CD-ROM.

Fedikow, M.A.F., Nielsen, E., Conley, G.G., and Lenton, P.G. 1999: Operation Superior: multimedia geochemical survey results from the Webber Lake, Knife Lake, Goose Lake and Echimamish River greenstone belts, northern Superior Province, Manitoba (NTS 53L and 53K); Manitoba Energy and Mines, Geological Services, Open File Report OF99-8, 400 p. and 1 CD-ROM.

Fedikow, M.A.F., Nielsen, E., Conley, G.G. and Lenton, P.G., 2000: Operation Superior: multimedia geochemical and mineralogical survey results from the southern portion of the Knee Lake greenstone belt, northern Superior Province, Manitoba (NTS 53L); Manitoba Industry, Trade and Mines, Geological Survey, Open File Report OF2000-2, 2 vols. + 1 CD-ROM.

Fipke, C.E., Gurney, J.J., and Moore, R.O. 1995: Diamond exploration techniques emphasizing indicator mineral geochemistry and Canadian examples; Geological Survey of Canada, Bulletin 423, 86 p.

Gurney, J.J. 1984: A correlation between garnets and diamonds in kimberlite; **in** Kimberlite Occurrence and Origin: a Basis of Conceptual Models in Exploration, (ed.) J.E. Glover and P.G. Harris; Geology Department and University Extension, University of Western Australia, Publication no. 8, p. 143-166.

Gurney, J.J. and Moore, R.O. 1993: Geochemical correlations between kimberlitic indicator minerals and diamonds; **in** Diamonds: Exploration, Sampling and Evaluation; Prospectors and Developers Association of Canada Short Course, 1993, p. 147-171.

Haggerty, S.E. 1975: The chemistry and genesis of opaque minerals in kimberlites; **in** Physics and Chemistry of the Earth, (ed.) L.H. Ahrens et al.; Pergamon Press, p. 295-307.

Haggerty, S.E. and Tompkins, L.A. 1983: Redox state of the earth's upper mantle from kimberlite ilmenites; Nature, v. 303, p. 295-300.

Morris, T.F., Crabtree, D., Sage, R.P., and Averill, S.A. 1998: Types, abundances and distribution of kimberlite indicator minerals in alluvial sediments, Wawa-Kinnimabi Lake area, northeastern Ontario: implications for the presence of diamond-bearing kimberlite; Journal of Geochemical Exploration, v. 63, p. 217-235.

Thorleifson, L.H., Garrett, R.G., and Matile, G.L.D. 1994: Prairie kimberlite study—indicator mineral geochemistry; Geological Survey of Canada, Open File 2875, 1 diskette.

Thorleifson, L.H. and Kristjansson, F.J. 1993: Quaternary geology and drift prospecting, Beardmore-Geraldton area, Ontario; Geological Survey of Canada, Memoir 435.

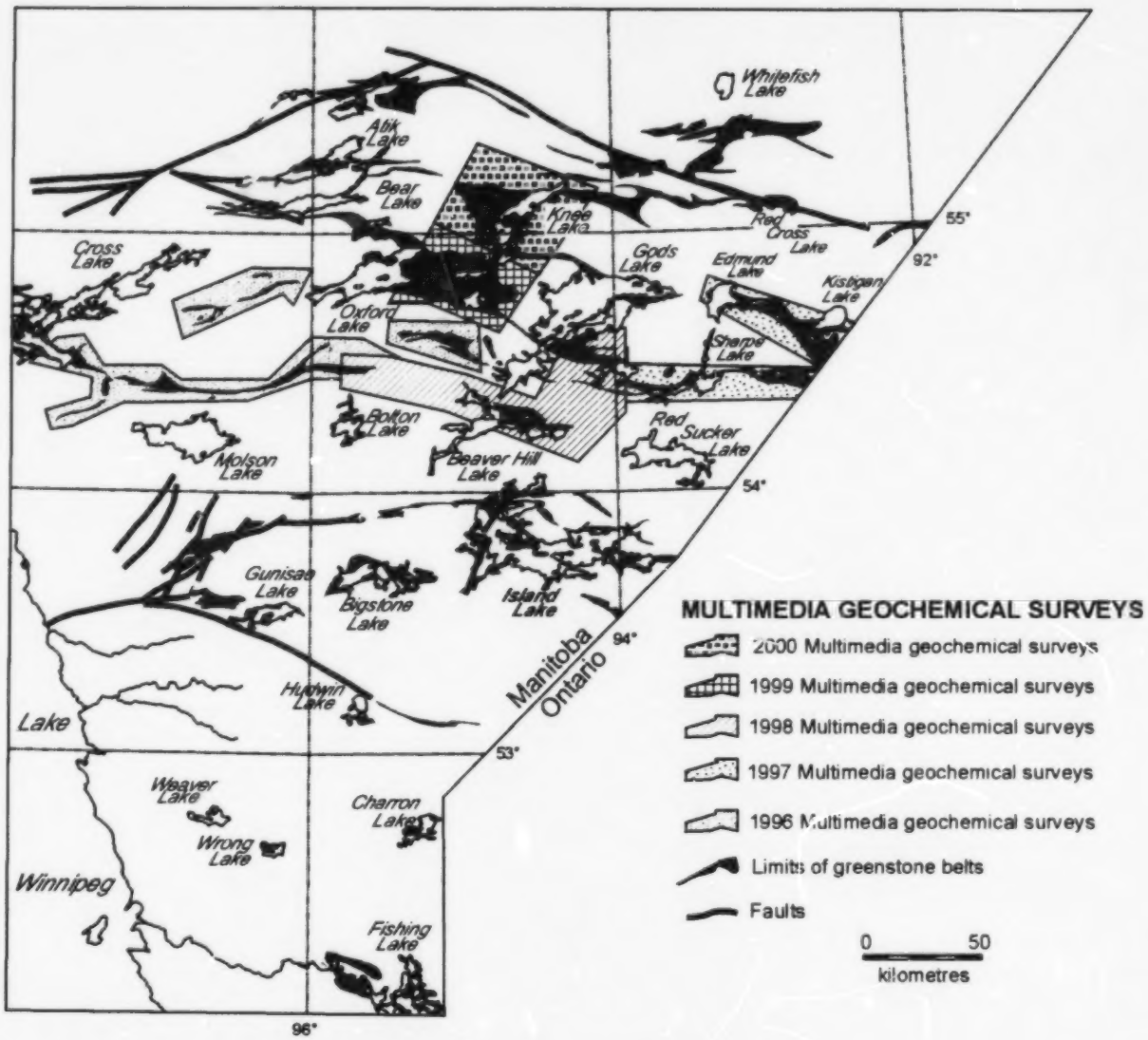
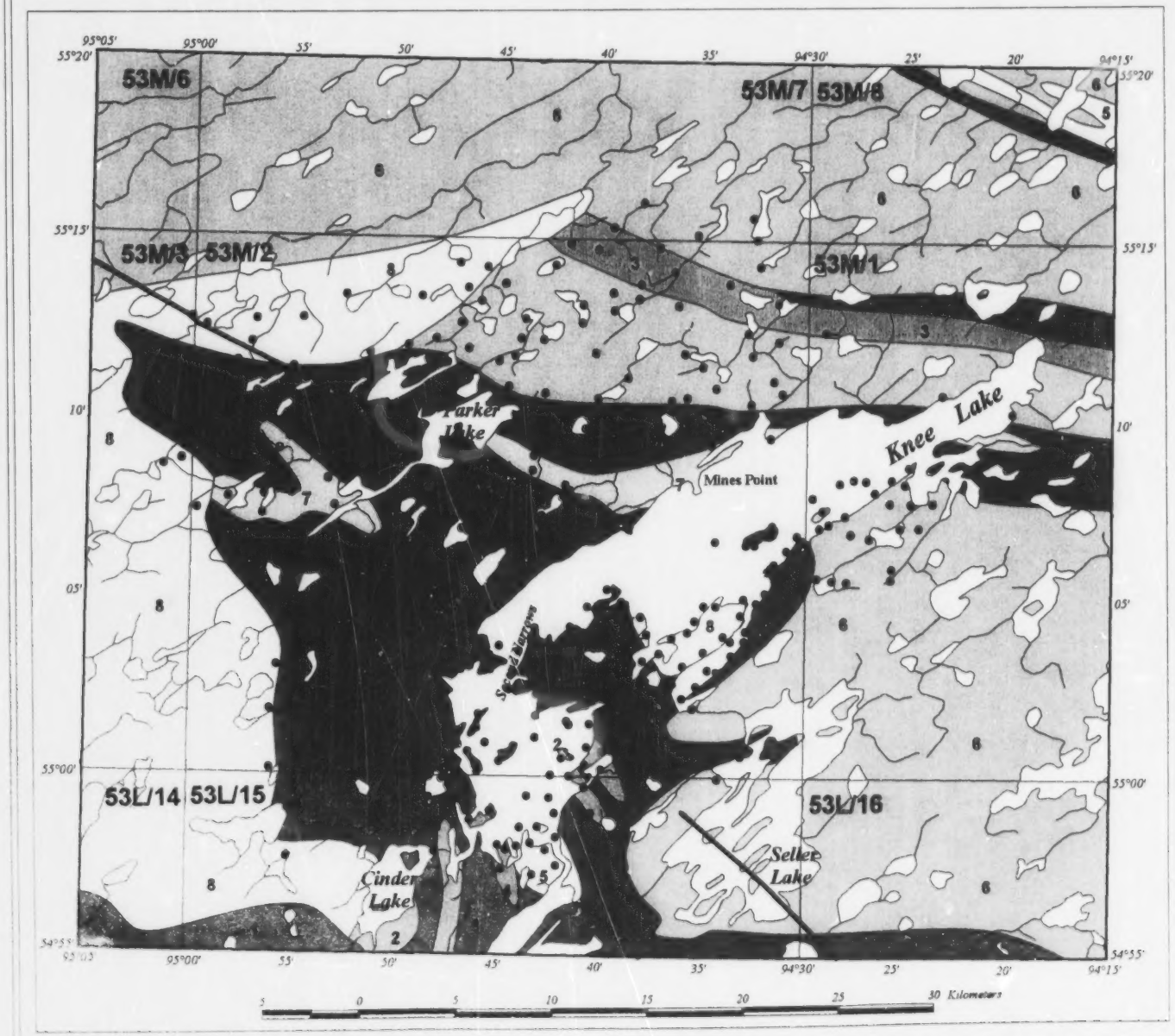


Figure 1: Location map for Operation Superior kimberlite indicator mineral survey, year 2000.



LEGEND

- 8 Granodiorite
- 7 Greywacke, arenite
- 6 Tonalite
- 5 Metasedimentary gneiss
- 4 Gabbro, gabbronorite
- 3 Greywacke, mudstone
- 2 Felsic volcanic rocks
- Basalt
- Mafic dyke

Kimberlite Indicator Mineral grain counts - 322 sites

- Sampling site

Figure 2a: General geology and sample locations for the 2000 kimberlite indicator mineral survey, northern Knee Lake greenstone belt.

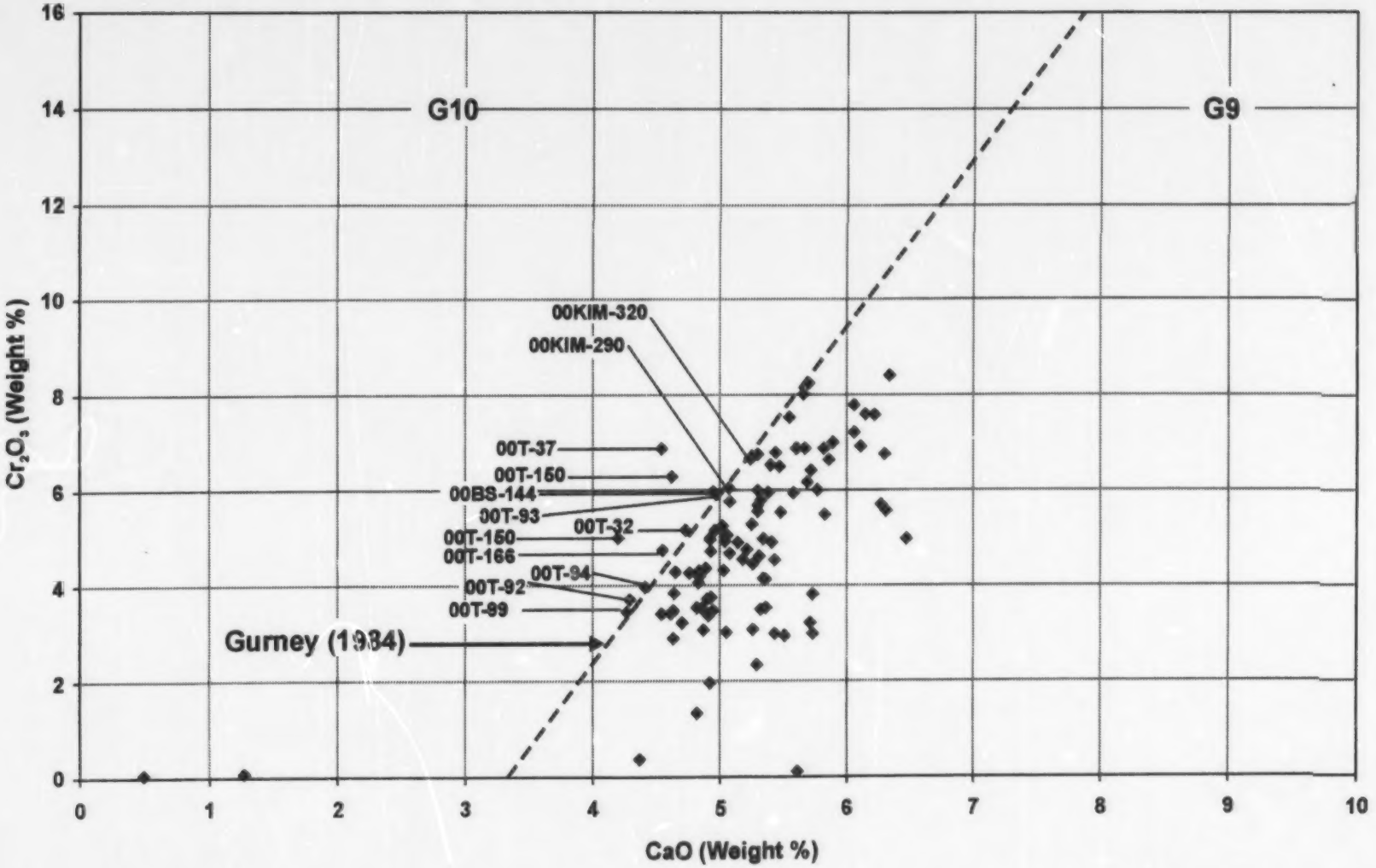


Figure 3: Cr_2O_3 vs CaO discriminant diagram for G9 and G10 garnets, 2000.

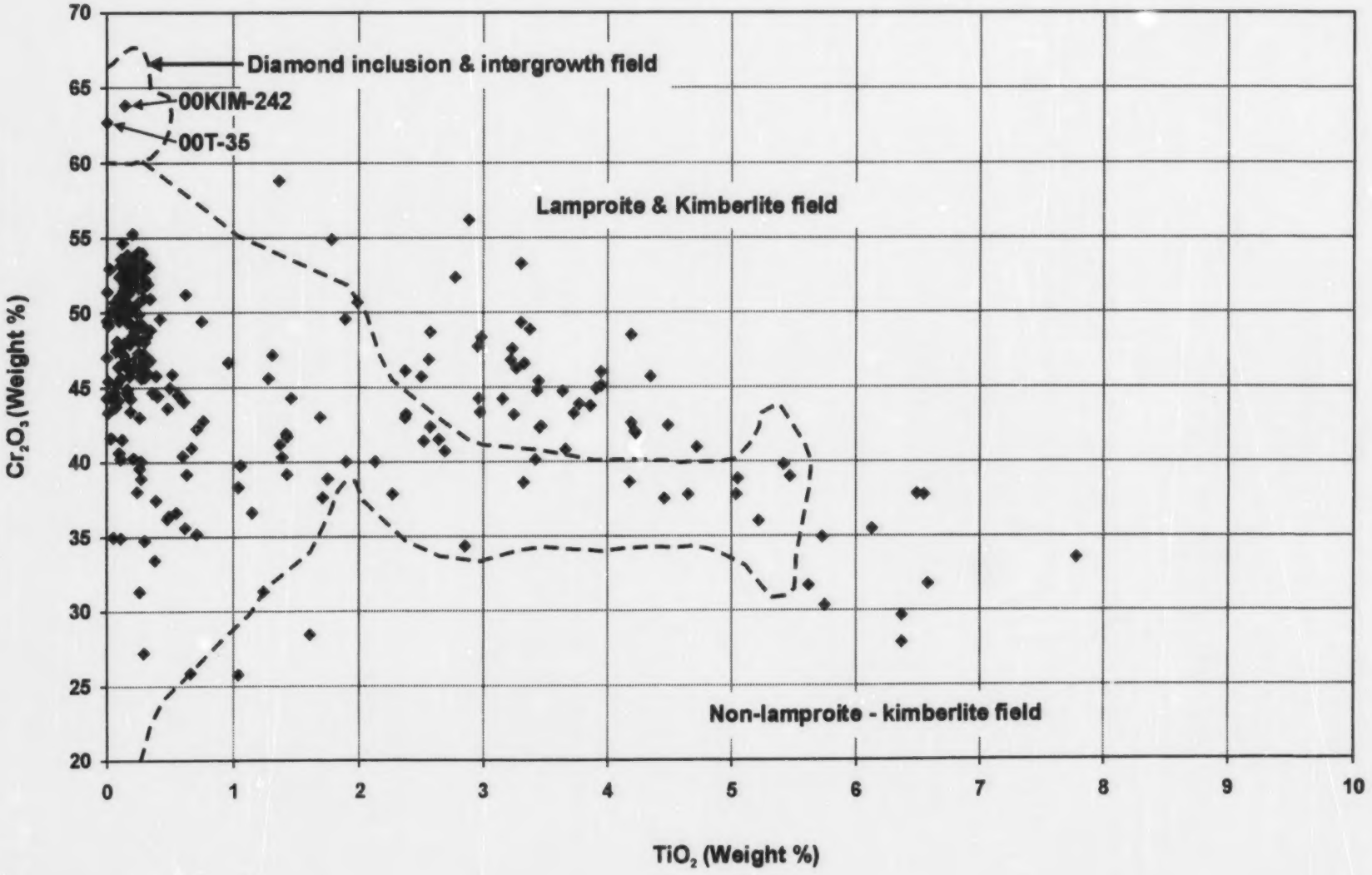


Figure 4: Cr_2O_3 vs TiO_2 discriminant diagram for diamond inclusion, lamproite and kimberlite spinels, 2000.

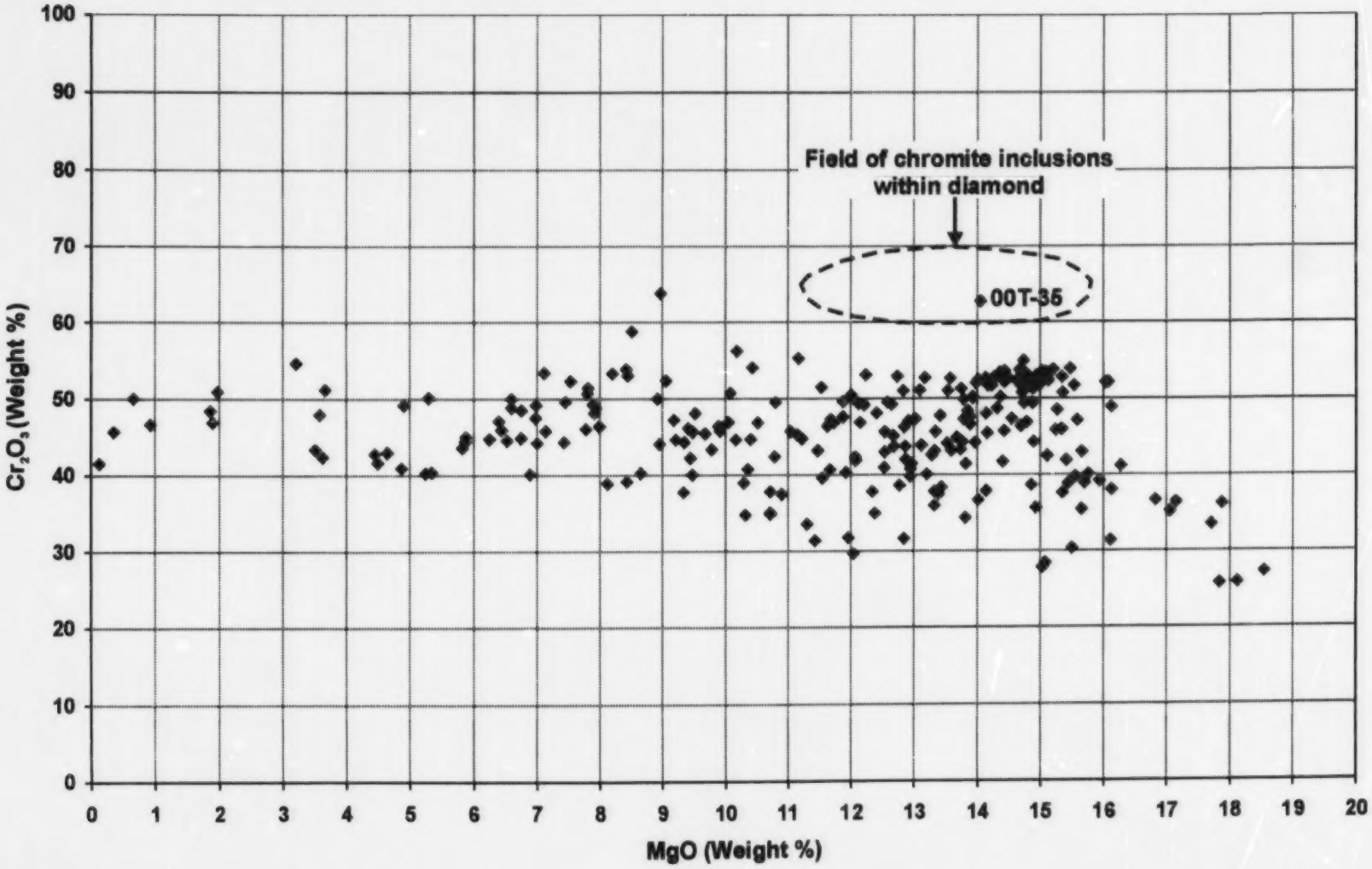


Figure 5: Cr_2O_3 vs MgO discriminant diagram for diamond inclusion spinels, 2000.

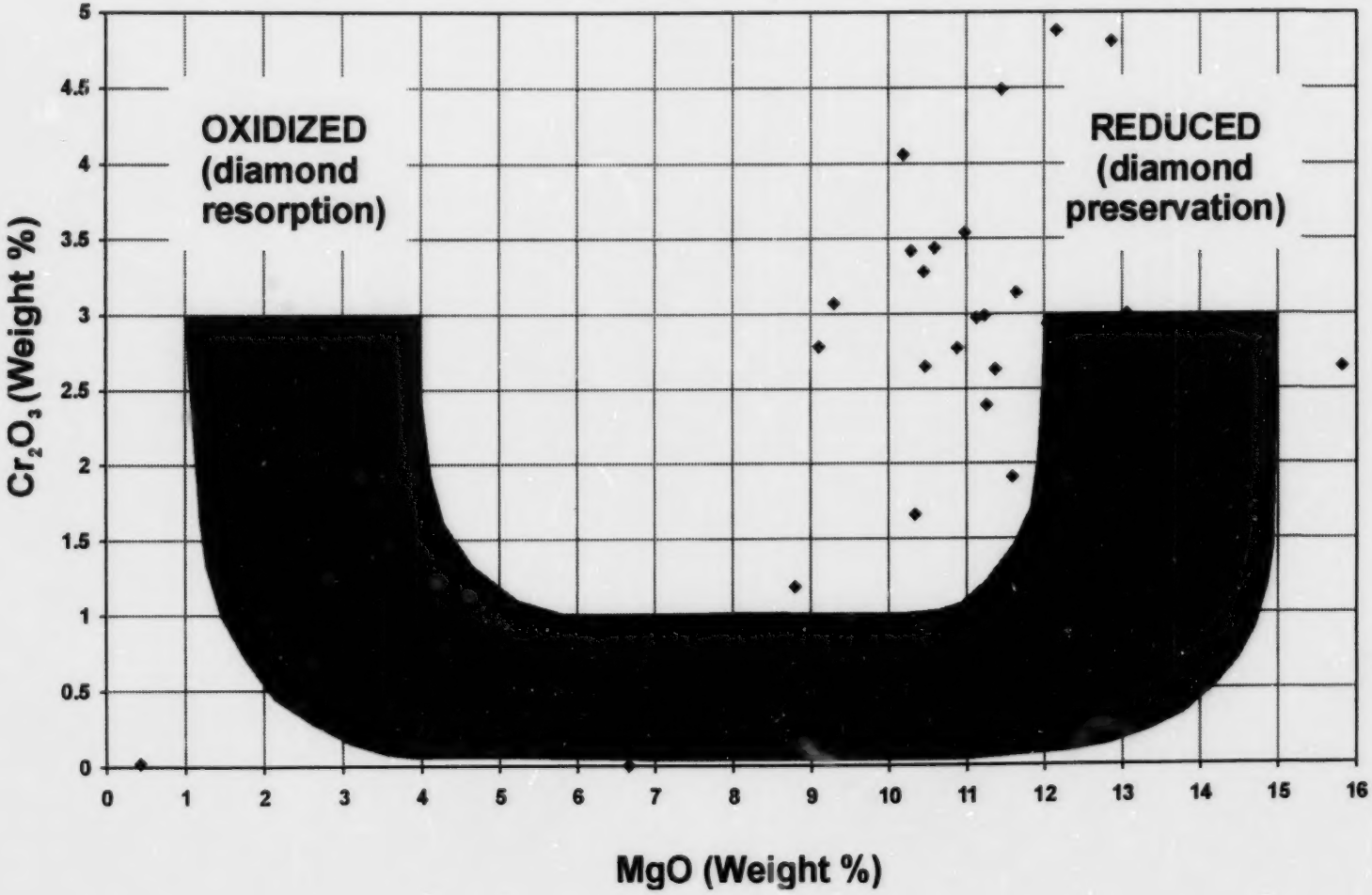


Figure 6: Cr_2O_3 vs MgO parabolic discriminant diagram for ilmenite, 2000.

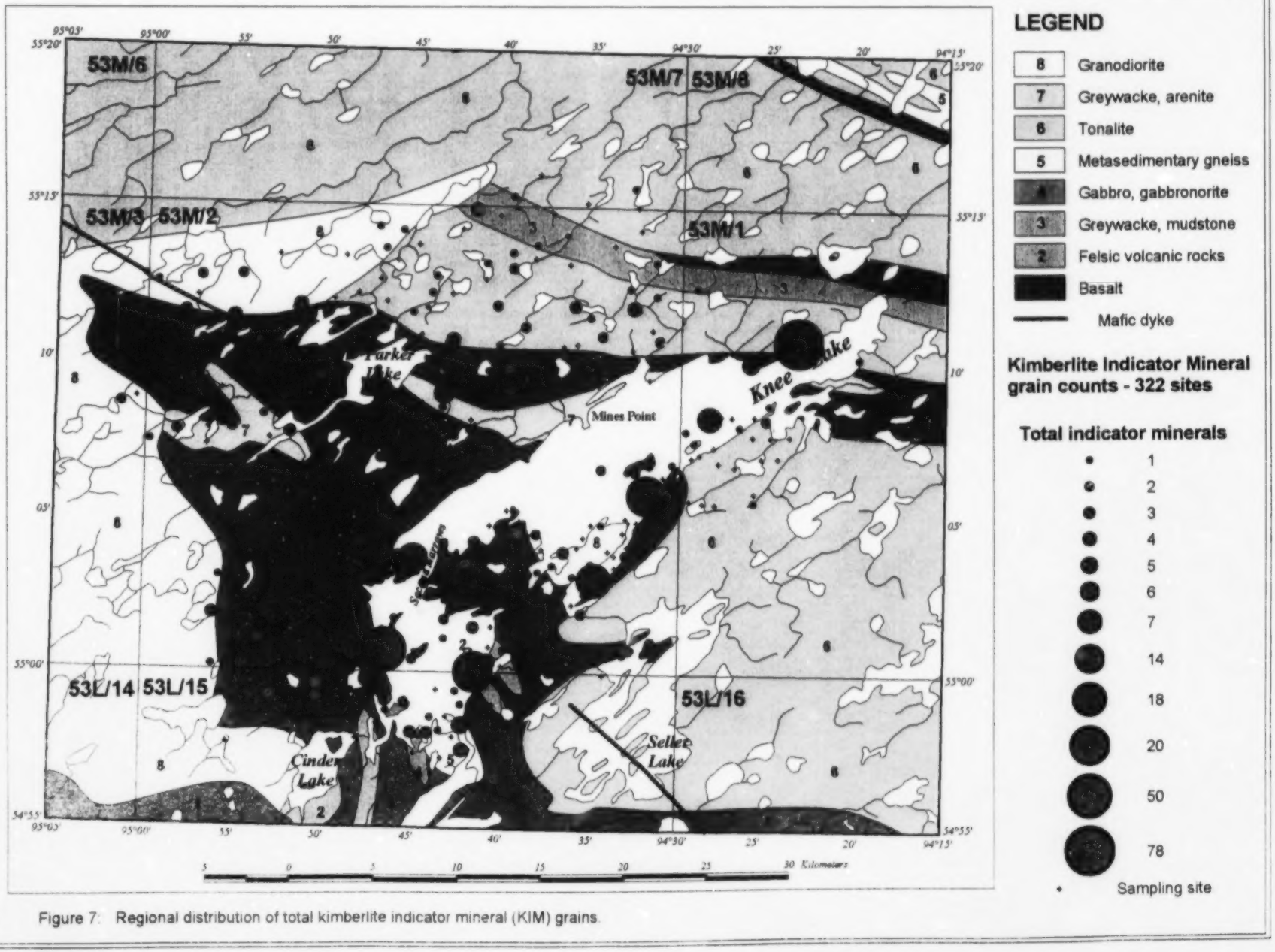
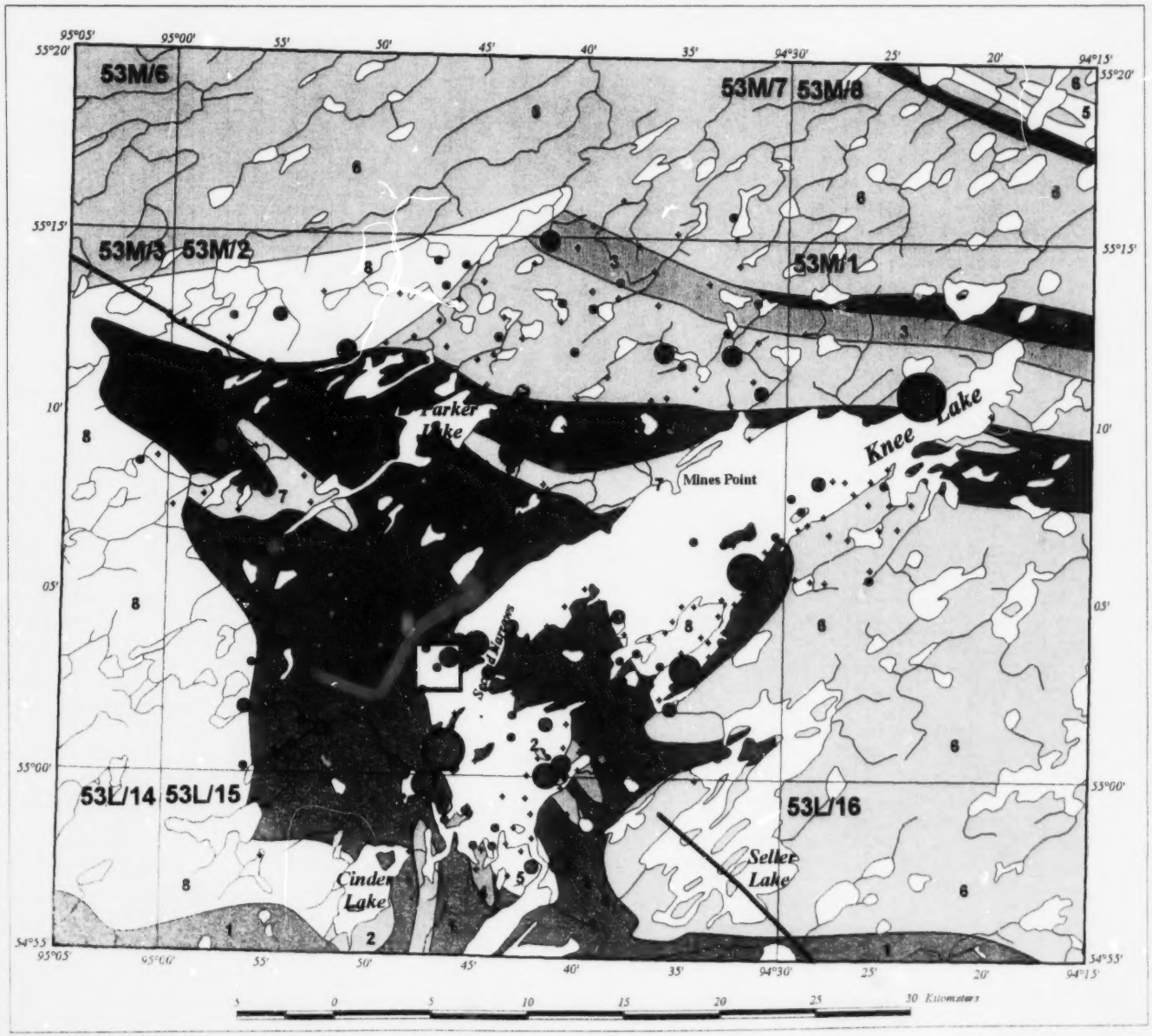


Figure 7: Regional distribution of total kimberlite indicator mineral (KIM) grains.



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- 7 Greywacke, arenite
- 6 Tonalite
- 5 Metasedimentary gneiss
- 4 Gabbro, gabbronorite
- 3 Greywacke, mudstone
- 2 Felsic volcanic rocks
- 1 Basalt
- Mafic dyke

Kimberlite Indicator Mineral grain counts - 322 sites

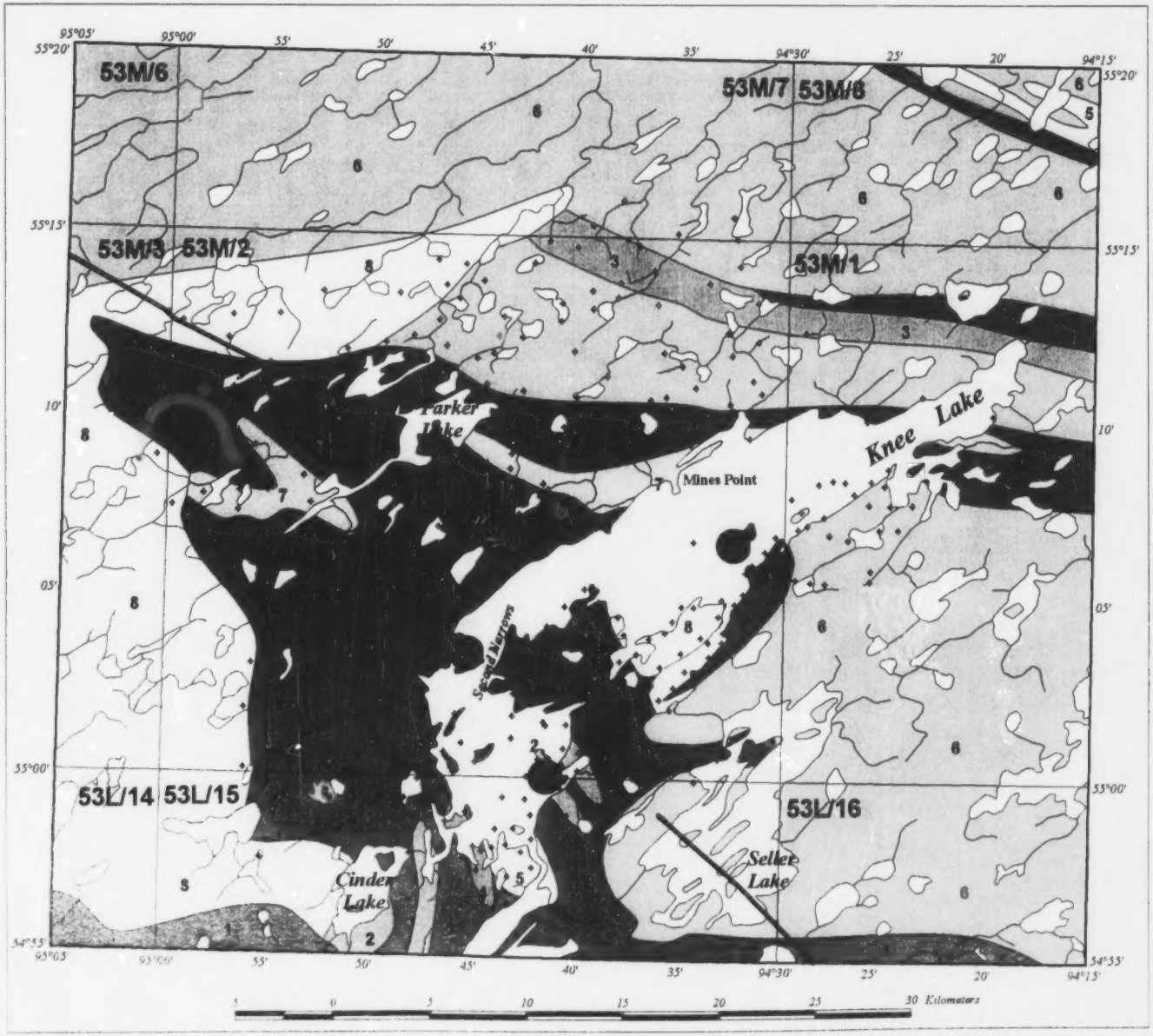
Cr spinel

- 1
- 2
- 3
- 4
- 10
- 11
- 12
- 63

Diamond inclusion Cr spinel

- 1
- Sampling site

Figure 8: Regional distribution of chrome spinel grains and diamond inclusion chrome spinel grain.



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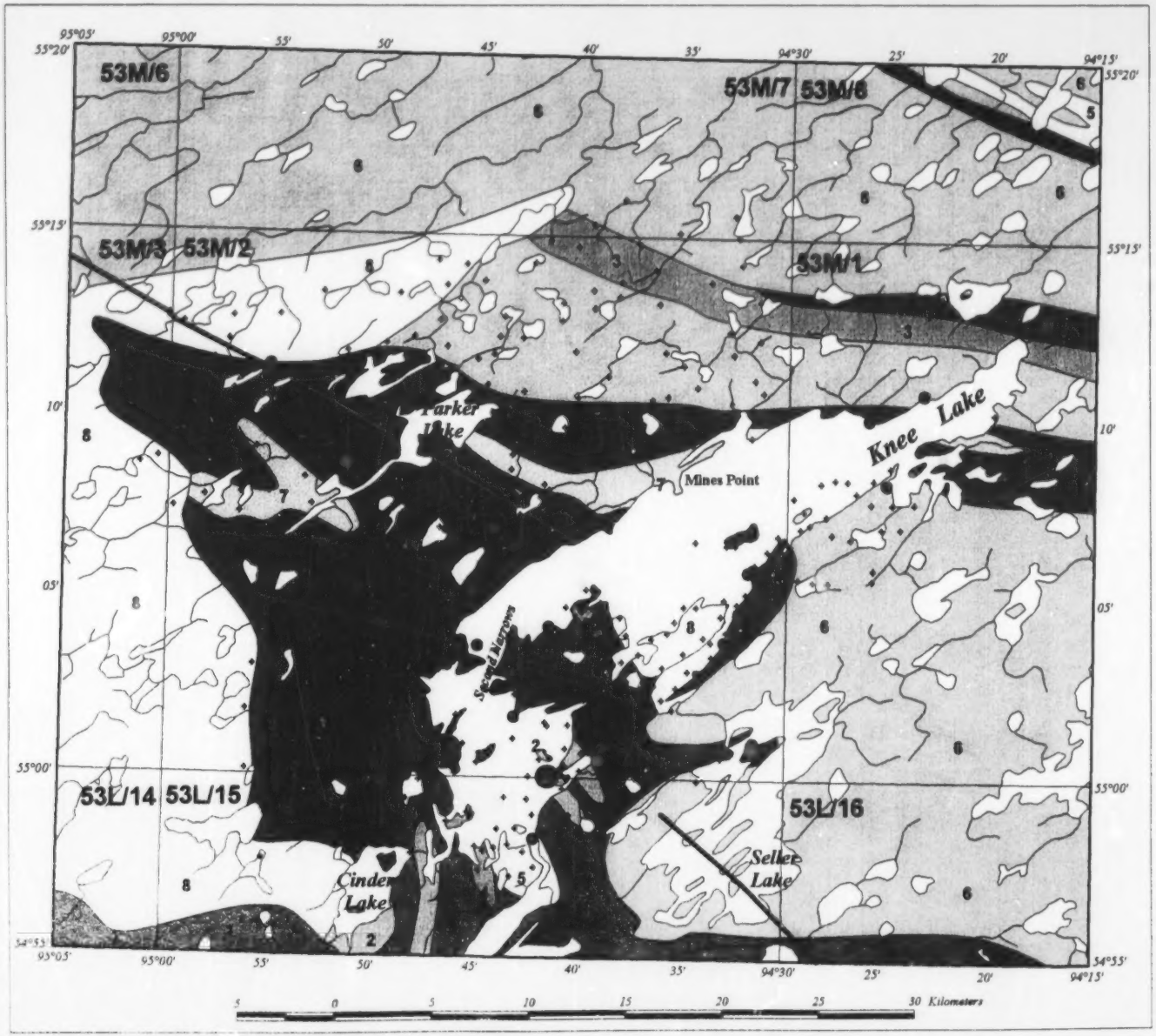
Kimberlite Indicator Mineral grain counts - 322 sites

Cr diopside

- 1
- Sampling site

Figure 9 Regional distribution of chrome diopside grains.



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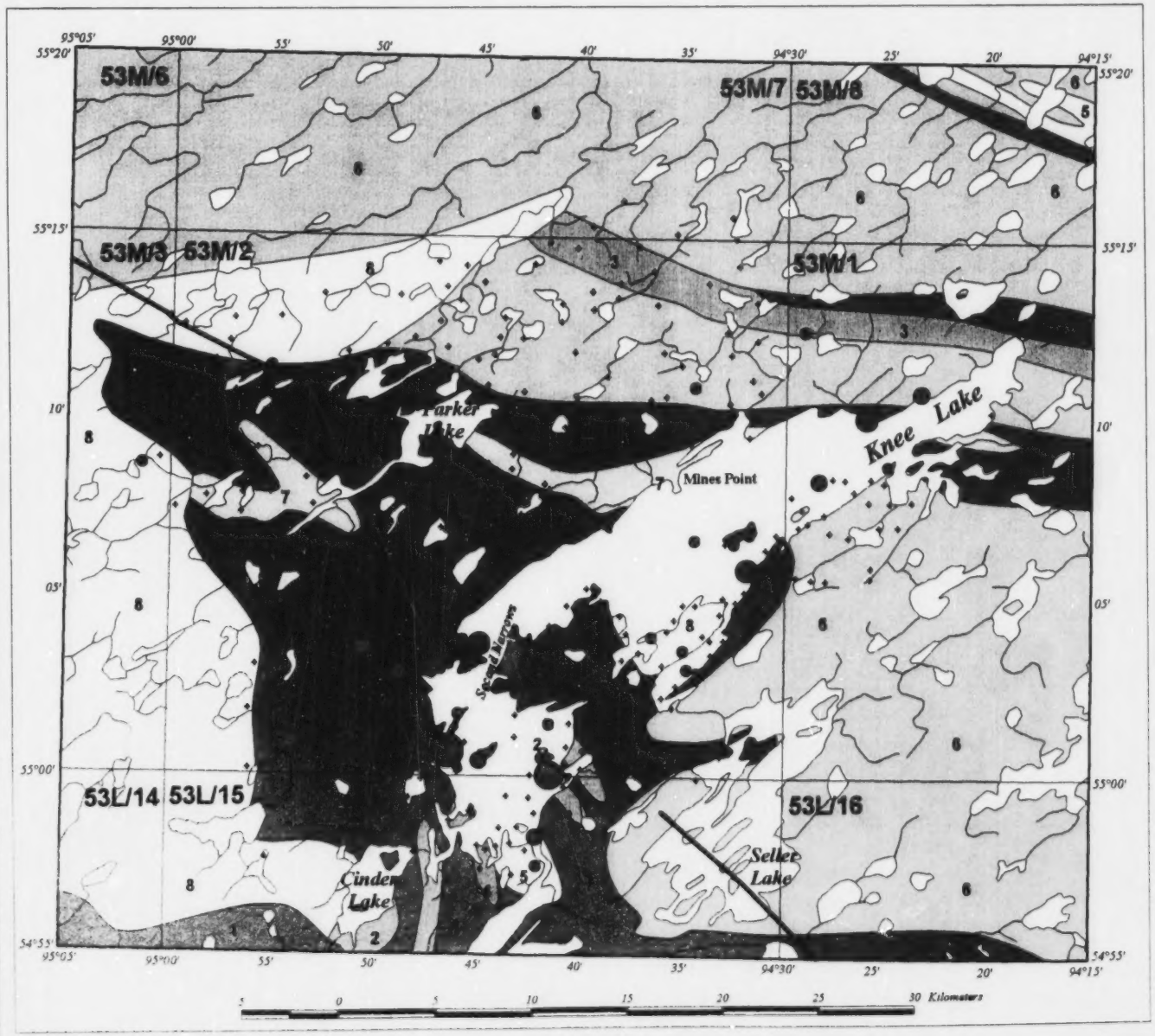
Kimberlite Indicator Mineral grain counts - 322 sites

Ti-Cr pyrope garnet

- 1
- 2
- 5

Sampling site

Figure 10: Regional distribution of Ti-Cr pyrope garnet grains.



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- 7 Greywacke, arenite
- 6 Tonalite
- 5 Metasedimentary gneiss
- 4 Gabbro, gabbronorite
- 3 Greywacke, mudstone
- 2 Felsic volcanic rocks
- Basalt
- Mafic dyke

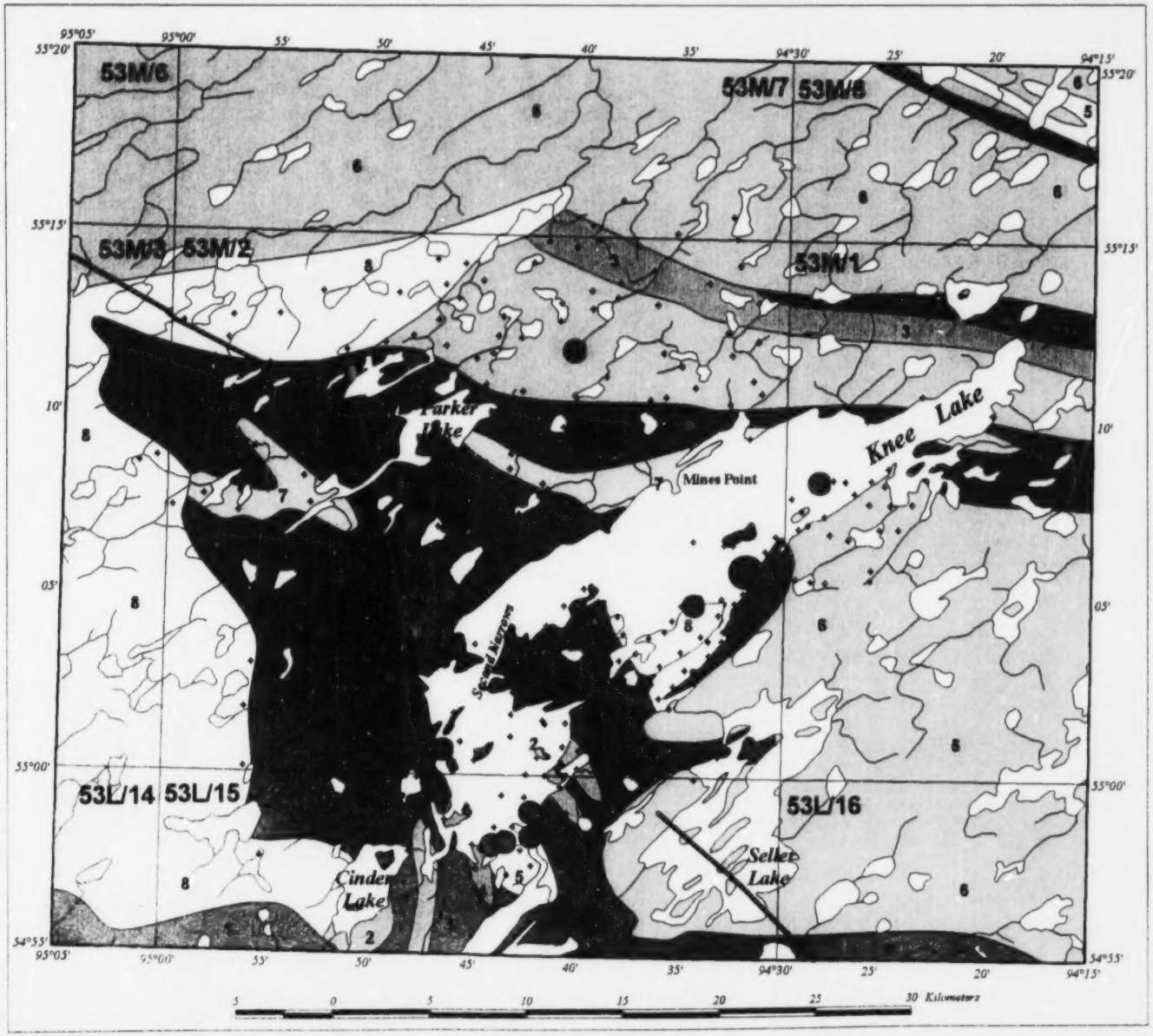
Kimberlite Indicator Mineral grain counts - 322 sites

"G9" garnet

- 1
- 2
- 3
- 5
- 14

Sampling site

Figure 11: Regional distribution of "G9" garnet grains



LEGEND

8	Granodiorite
7	Greywacke, arenite
6	Tonalite
5	Metasedimentary gneiss
4	Gabbro, gabbronorite
3	Greywacke, mudstone
2	Felsic volcanic rocks
	Basalt
	Mafic dyke

Kimberlite Indicator Mineral grain counts - 322 sites

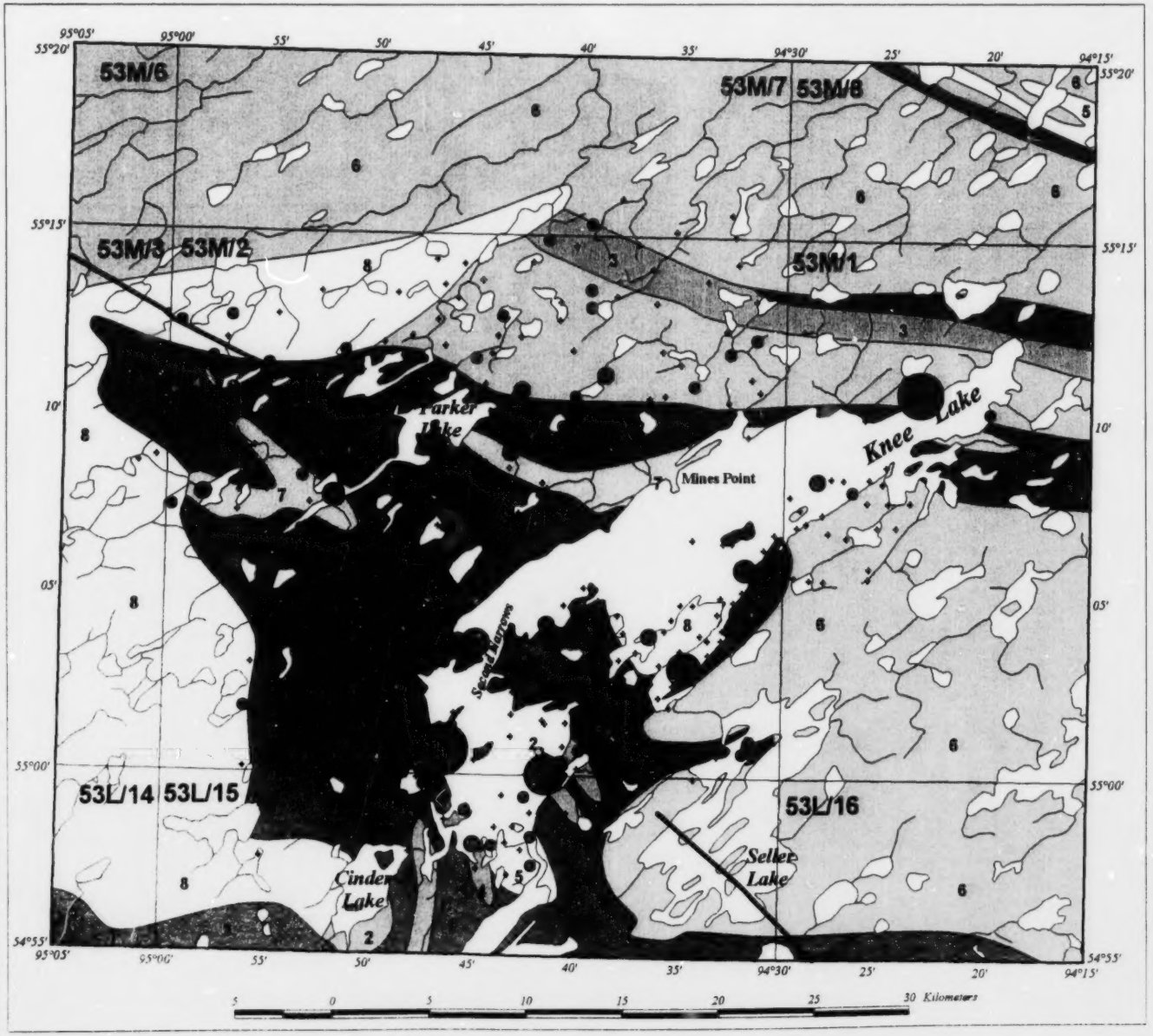
"G10" garnets

1

2

Sampling site

Figure 12. Regional distribution of "G10" garnet grains.



LEGEND

- 8 Granodiorite
- 7 Greywacke, arenite
- 6 Tonalite
- 5 Metasedimentary gneiss
- 4 Gabbro, gabbronorite
- 3 Greywacke, mudstone
- 2 Felsic volcanic rocks
- Basalt
- Mafic dyke

Kimberlite Indicator Mineral grain counts - 322 sites

Mg ilmenite

- 1
- 2
- 3
- 6
- 7
- 8
- 12
- 18

Sampling site

Figure 13: Regional distribution of magnesian ilmenite grains

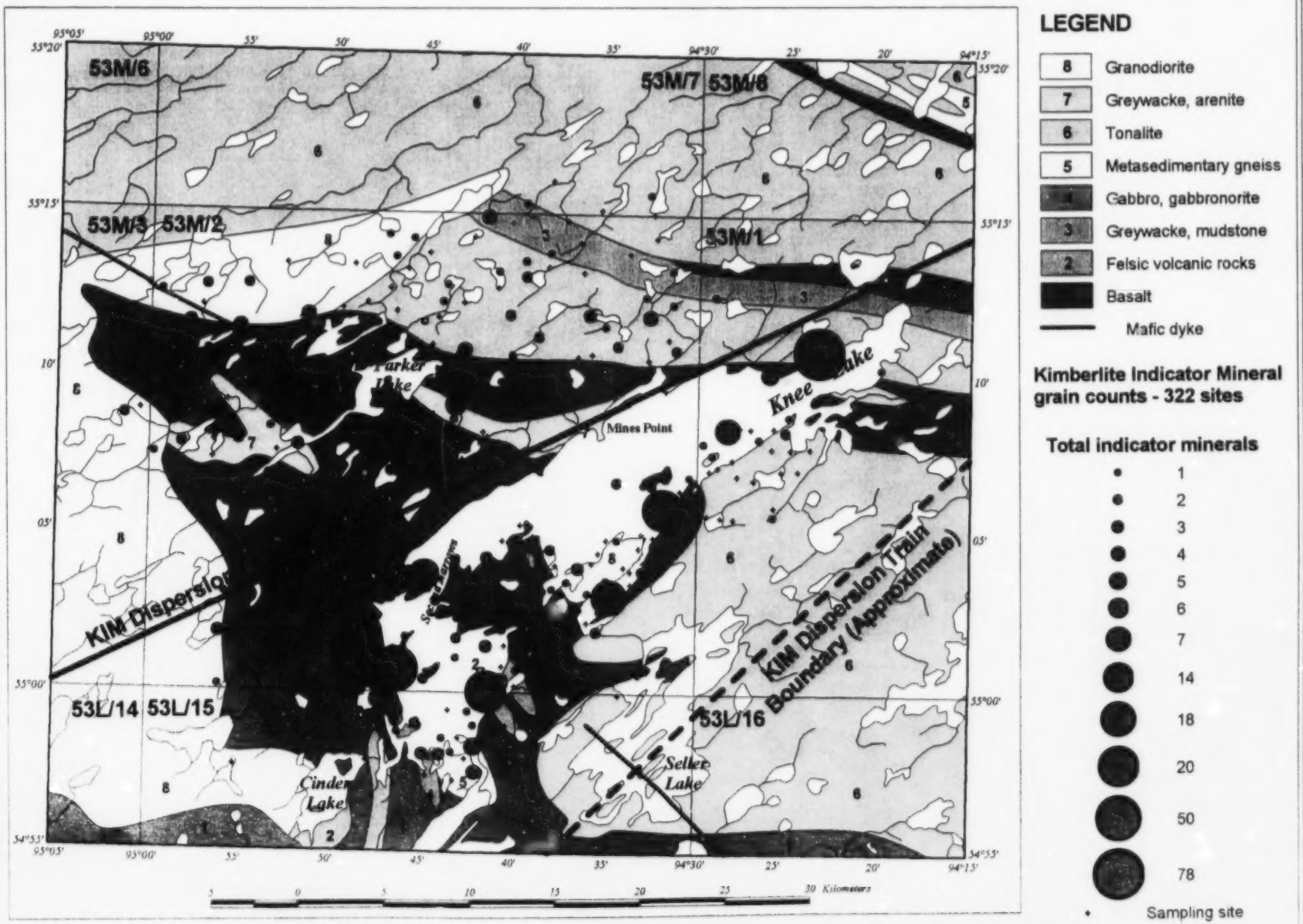


Figure 14: Schematic diagram illustrating total kimberlite indicator mineral grain counts and the limits of the KIM dispersion train defined by this data.

Table 1: Guidelines for preliminary mineral identification (Thorleifson et al., 1994).

Total <70%	+ CaO >44%	Apatite
Total <70%	+ FeO >50%	Siderite
Total <70%	+ Al_2O_3 >40%	Gahnite
Total 34%	+ SiO_2 33%	Zircon
Total <70%		low total; eg. phosphate, sulphate, carbonate
SiO_2 <20%	+ Cr_2O_3 >60% + MgO >12%	diamond inclusion Cr-spinel
	+ Cr_2O_3 >10%	Cr-spinel
	+ TiO_2 >70%	Rutile
	+ TiO_2 >30% + MgO >6%	Mg-ilmenite
	+ TiO_2 >30%	Ilmenite
	+ TiO_2 >1%	Ti-Fe-oxide
	+ FeOt >90%	Magnetite
	+ FeOt >80%	Hematite
	+ FeOt >40%	Goethite
	+ Al_2O_3 >80	Corundum
	+ Al_2O_3 >30% + Fe0 >20%	Hercynite
	+ Al_2O_3 >30%	Spinel
SiO_2 >75%		Quartz
SiO_2 >55%	+ Al_2O_3 >16%	Feldspar
TiO_2 >20%		Sphene
Al_2O_3 >55%		Kyanite
Al_2O_3 >45%		Staurolite
Al_2O_3 >24%	+ total <90% + MgO >5.3%	Mg-tourmaline
Al_2O_3 24%	+ total <90% + MgO <5.3%	Fe-tourmaline
Al_2O_3 24%	+ total<98% + CaO 22.2-25%	Epidote
SiO_2<47%	+K_2O>0.5% or Na_2O>1% or SiO_2 41-47% + Cr_2O_3 <0.5%	Amphibole
SiO_2 >47%	+ CaO <3.1%	OPX
	+ Na_2O >2.7%	Na-CPX
	+ FeOt >6.1%	Fe-CPX
	+ >0.5% Cr_2O_3	Cr-diopside
	Remainder	Diopside
MgO >25%		Olivine
Garnet	+ MgO >13% + Cr_2O_3 >0.5%	Cr-pyrope
	+MgO>4%+CaO>2% + TiO_2 >0.2%	Eclogitic garnet
	+ Cr_2O_3 >14%	Uvarovite
	+ MgO >13%	Pyrope
	+ TiO_2 >2.5 + Al_2O_3 <11.5%	Melanite
	+CaO>16%+Al_2O_3<11.5% + Cr_2O_3 >1%	Cr-andradite
	+ CaO >16% + Al_2O_3 <11.5%	Andradite
	CaO >30% + Cr_2O_3 >1%	Cr-Grossularite
	+ CaO >30%	Grossularite
	+ MnO >21%	Spessartite
	+ FeOt >25%	Almandite
	Remainder	Garnet

Table 2: Kimberlite indicator mineral classification (Thorleifson et al., 1994)

1. Cr-spinel	>60% Cr_2O_3 + >12% MgO	diamond inclusion Cr-spinel
2. Ilmenite	>-6% MgO	Mg-ilmenite
3. Pyroxene	>0.50% Cr_2O_3	Cr-diopside
4. Garnet	>13% MgO and >0.50% Cr_2O_3	Cr-pyrope
	>0.30% TiO_2 + 4.0% Cr_2O_3	G11 titanian, Cr-pyrope
	>.90% TiO_2	G2 titanian, Cr-pyrope
	>0.30% TiO_2	G1 titanian, Cr-pyrope
	>12.0% Cr_2O_3	G12 Non-titanian, Cr- pyrope
	CaO <0.285 (Cr_2O_3)+3.14	G10 Non-titanian, Cr-pyrope
	CaO >0.285 (Cr_2O_3)+5.14	G7 Non-titanian, Cr-pyrope
	Remainder	G9
	>4.0% MgO + >2.0% CaO + >0.20% TiO_2 + >19% Al_2O_3 + <0.5% Cr_2O_3	Eclogitic garnet
	>0.60% TiO_2	G4
	>16.0% CaO	G8
	>12.0% CaO	G6
	Remainder	G3

Table 3: Kimberlite indicator mineral chemistry and classification.

Mineral Chemistry (0.3 mm)
NOTE:BS = Beach Sand

Sample	Easting	Northing	MnO	Na_2O	Al_2O_3	FeO	SiO_2	TiO_2	CaO	Cr_2O_3	MgO	TOTAL	Classification
2000T-1	376811.59	6095036	0.3	0.11	0.01	33.81	0.02	49.36	0	3.9	10.66	98.17	Mg-ilmenite
2000T-12	386406.75	6094751.5	0.36	0.07	11.21	30.45	0	0.62	0.13	51.19	3.67	97.71	Cr-spinel
2000T-14	384536.25	6095146.5	0.48	0.02	0	36.94	0	48.29	0	3.43	8.77	97.94	Mg-ilmenite
2000T-15	385545.63	6095757	0.16	0.02	15.87	25.75	0.15	2.64	0.02	41.49	12.97	99.08	Cr-spinel
2000T-15	385545.63	6095757	0.06	0.16	19.59	21.25	0.15	1.42	0	41.9	15.41	99.94	Cr-spinel
2000T-15	385545.63	6095757	0.46	0.09	11.99	37.95	0	0.26	0	42.98	4.64	98.38	Cr-spinel
2000T-15	385545.63	6095757	0.09	0	1.02	88.8	0.06	0.09	0	0	0.11	90.17	hematite
2000T-15	385545.63	6095757	0.33	0.13	0	35.51	0	50.01	0	3.41	10.73	100.11	Mg-ilmenite
2000T-16	389243.59	6093479	0.45	0	6.98	40.19	0	0.48	0	43.6	5.82	97.51	Cr-spinel
2000T-17	388099.72	6092595	0.42	0.04	18.04	18.66	0.17	0.12	0.01	50.96	12.83	101.25	Cr-spinel
2000T-17	388099.72	6092595	0.35	0.32	2.4	21.61	31.34	10	31.61	0.06	0.81	98.5	Fe-Ti oxide
2000T-17	388099.72	6092595	0.28	0	0	36.5	0	49.79	0	2.57	8.69	97.83	Mg-ilmenite
2000T-20-BS	409717.81	6111834.5	0.55	0.11	20.96	8.8	41.31	0.04	5.36	3.53	18.77	99.44	non-titanian Cr-pyrope (G9)
2000T-21-BS	411487.41	6115553.5	0.2	0.02	9.96	40.18	0.1	6.37	0	29.67	12.04	98.53	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.13	0.06	12.85	30.8	0.06	2.69	0	40.72	10.36	97.68	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.28	0.04	22.67	18.73	0	0.19	0	44.24	13.77	99.91	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.3	0.12	17.22	19.55	0	0.27	0	49.21	12.65	99.33	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.33	0	15.61	27.26	1.69	0.27	0	45.62	9.48	100.27	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.17	0	18.47	15.89	0	0.14	0	51.28	14.89	100.85	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.05	0.08	22.8	30.83	0.1	0.26	0	31.34	11.43	96.9	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.63	0	16.69	24.33	0	0	0	51.39	7.81	100.85	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.08	0.08	16.88	14.67	0.04	0.19	0	51.55	14.85	98.35	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.11	0	23.14	19.9	0	1.06	0	39.75	15.56	99.54	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.11	0.04	17.21	15.11	0	0.23	0	53.38	14.37	100.46	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.2	0	17.35	18.8	0	0.18	0	50.46	12.01	99	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.53	0	21.62	26.83	0	0.05	0.02	44.18	7	100.23	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.02	0	16.87	15.87	0.02	0.21	0	52.1	16.03	101.1	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.25	0.1	18.75	25.46	0	0.16	0	44.6	10.17	99.49	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.04	0.05	38.58	14.84	0.02	1.04	0	25.76	17.84	98.17	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.19	0	7.78	39.11	0	7.78	0	33.56	11.3	99.74	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.22	0	21.47	26.68	0	0.26	0	39.57	11.55	99.77	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.45	0.13	14.2	26.33	0.08	1.89	0	49.55	7.45	100.06	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.1	0.13	32.2	19.68	0	0.11	0	34.94	12.38	99.53	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.2	0	11.04	33.93	0.02	5.04	0	37.8	10.72	98.75	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.15	0	17.14	13.5	0	0.13	0	53.47	15.03	99.44	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.19	0	9.1	25.41	0.1	3.95	0	45.99	15.34	100.08	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.03	0	17.51	14.63	0	0.2	0	52.17	14.44	98.98	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.21	0.1	23.49	20.37	0.02	1.43	0	39.19	15.94	100.76	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.13	0.04	16.68	15.58	0	0.18	0	52.24	14.64	99.49	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.02	0	18.88	15.24	0	0.2	0	50.19	14.38	98.91	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.3	0.08	22.28	18.36	0.17	0.07	0.07	43.73	12.86	97.91	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.18	0.06	18.67	15.48	0	0.06	0	50.69	14.72	99.85	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.53	0	18.1	28.11	0.12	0	0.02	44.31	7.43	98.62	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.63	0.1	21.96	21.05	0	0.06	0.03	44.69	10.41	98.92	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.04	0.21	17.99	14.3	0	0.2	0	51.72	14.99	99.46	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.06	0.02	15.41	17.88	0.1	0.75	0	49.38	14.88	98.47	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.12	0.04	16.87	23.3	0.13	1.69	0.08	42.98	12.54	97.74	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.11	0	17.1	14.25	0	0.14	0	51.7	14.69	98	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.48	0.06	15.83	29.46	0	0.52	0.02	45.87	6.44	98.68	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.35	0	18.33	28.22	0.04	0.71	0	42.2	9.44	99.29	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.19	0	16.21	14.59	0	0.19	0	53.41	15.1	99.68	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0	0.11	30.22	14.66	0.2	0.55	0	36.64	16.82	99.2	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.48	0	0.54	41.8	0.04	3.43	0.04	44.73	6.25	97.31	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.21	0	16.4	16.42	0.04	0.2	0	51.63	15.54	100.44	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.05	0	27.14	18.65	0.06	1.04	0	38.34	13.43	98.71	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.25	0	15.78	19.2	0	0.1	0	51.07	13.09	99.49	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.3	0.08	19.47	24.54	0.13	0.61	0.1	44.04	8.95	98.22	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.4	0.04	13.08	23.66	0.17	0.16	0	53.86	8.42	99.79	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.5	0.08	18.67	30.21	0	0.4	0	44.4	5.87	100.14	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.14	0	25.53	20.31	0	1.71	0	37.61	15.35	100.66	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.99	0.16	6.58	32.46	0.06	0.12	0.02	54.67	3.21	98.25	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.18	0	13.71	27.51	0.12	2.52	0	41.39	13.82	99.24	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.3	0.19	18.07	29.91	0.04	0.56	0	44.51	6.53	100.11	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.1	0	21.54	15.94	0	0.22	0	46.37	14.69	98.86	Cr-spinel

Table 3: Kimberlite indicator mineral chemistry and classification. (continued)

Mineral Chemistry (0.3 mm)
NOTE:BS = Beach Sand

Sample	Easting	Northing	MnO	Na_2O	Al_2O_3	FeO	SiO_2	TiO_2	CaO	Cr_2O_3	MgO	TOTAL	Classification
2000T-21-BS	411487.41	6115553.5	0.39	0	8.77	30.07	0.08	0.13	0	50.64	7.8	97.88	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.29	0.06	15.39	22.47	0.12	0	0.01	49.47	10.8	98.61	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.23	0.04	17.3	16.12	0	0.25	0	50.7	15.36	100	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.43	0	16.37	32.48	0	0.63	0	39.17	8.43	97.52	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.66	0	19.71	28.35	0.08	0.21	0	40.26	8.65	97.92	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.29	0	17.67	17.98	0	0.17	0	51.26	13.75	101.12	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.2	0.09	10.07	28.91	0.04	3.64	0.02	44.72	11.22	98.89	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.11	0.17	17.28	13.48	0	0.14	0	52.94	14.95	99.07	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.1	0.04	7.08	34.06	0.06	5.42	0	39.78	12.94	99.48	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.29	0	17.29	15.97	0	0.25	0	52.41	14.02	100.23	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.01	0	34.39	14.9	0.1	0.38	0	33.45	17.71	100.95	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.31	0	7.27	29.11	0	3.77	0	43.86	13.12	97.44	Cr-spinel
2000T-21-BS	411487.41	6115553.5	0.76	0.02	4.1	25	37.01	0.61	31.28	0.09	0.05	98.92	Fe-Ti oxide
2000T-21-BS	411487.41	6115553.5	0.92	0	0.11	48.71	0.06	48.37	0.02	0.18	0.38	98.74	ilmenite
2000T-21-BS	411487.41	6115553.5	3.77	0	0	45.04	0.02	49.71	0	0	0.09	98.63	ilmenite
2000T-21-BS	411487.41	6115553.5	2.19	0.02	0	47.11	0.07	50.4	0	0.01	0.34	100.16	ilmenite
2000T-21-BS	411487.41	6115553.5	0.29	0	0.31	33.96	0.18	49.78	0	3.11	10.95	98.58	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.31	0	0	34.24	0	50.79	0.01	3.89	10.17	99.21	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.44	0.17	0.06	37.09	0.07	47.35	0	3.33	8.95	97.47	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.34	0	0	37.04	0	47.86	0	3.49	9.03	97.77	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.21	0.02	0.01	33.72	0	49.82	0	3.2	11.38	98.36	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.16	0.13	0.13	33.22	0	49.55	0	3.19	11.25	97.63	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.26	0.04	0.17	33.26	0	50.75	0	2.8	10.91	98.19	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.45	0.07	0	40.44	0	46.92	0	2.61	8.26	98.75	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.57	0.19	0	36.95	0.02	47.95	0	3.07	9.58	98.33	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.21	0	0.14	33.88	0	49.06	0	3.22	12	98.5	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.34	0	0	35.21	0	48.63	0	3.7	9.94	97.82	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.17	0	0.43	44.61	0	43.95	0.03	0.9	7.65	97.73	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.47	0.13	20.25	8.52	42.11	0	5.26	3.07	18.91	98.72	non-titanian Cr-pyrope (G9)
2000T-21-BS	411487.41	6115553.5	0.31	0.28	20.11	7.16	42	0.18	4.92	4.95	20.35	100.27	non-titanian Cr-pyrope (G9)
2000T-21-BS	411487.41	6115553.5	0.24	0.06	23.04	19.55	0	1.75	0	38.87	15.7	99.22	spinel
2000T-21-BS	411487.41	6115553.5	0.12	0.13	28.95	26.16	0	1.61	0	28.44	15.08	100.5	spinel
2000T-21-BS	411487.41	6115553.5	0.08	0	39.55	15.45	0.28	0.66	0	25.87	18.12	100.01	spinel
2000T-21-BS	411487.41	6115553.5	0.44	0.08	18.88	6.99	43	0.33	4.92	4.98	21.58	101.21	titanian Cr-pyrope (G11)
2000T-22-BS	408615.97	6114290.5	0.12	0	6.9	31.89	0	4.72	0	40.96	12.53	97.13	Cr-spinel
2000T-22-BS	408615.97	6114290.5	0.43	0.05	21.7	7.98	41.86	0.05	4.7	3.22	20.42	100.43	non-titanian Cr-pyrope (G9)
2000T-22-BS	408615.97	6114290.5	0.46	0.08	21.25	7.39	42.08	0.18	5.43	4.53	19.05	100.44	non-titanian Cr-pyrope (G9)
2000T-22-BS	408615.97	6114290.5	0.39	0.09	18.55	6.59	41.6	0.25	5.86	6.63	21.49	101.45	non-titanian Cr-pyrope (G9)
2000T-22-BS	408615.97	6114290.5	0.41	0.05	17.96	6.91	41.79	0.33	6.06	7.2	19.27	99.99	titanian Cr-pyrope (G11)
2000T-26	386632.31	6093907.5	0.33	0	20.74	19.85	0.04	0.16	0	44.87	13.68	99.67	Cr-spinel
2000T-27	387695.53	6094386	0.12	0.06	17.08	14.39	0.03	0.28	0.1	51.98	13.99	98.01	Cr-spinel
2000T-30	387156.56	6099410.5	0.52	0.19	21.35	9.61	42.65	0.12	5.32	3.5	17.98	101.23	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.24	0	16.1	15.53	0	0.2	0	52.81	14.47	99.36	Cr-spinel
2000T-32-BS	386554.5	6097484	0.19	0	8.04	26.09	0.08	2.5	0	45.7	14.43	97.02	Cr-spinel
2000T-32-BS	386554.5	6097484	0	0.05	17.98	14.17	0.04	0.19	0	52.52	14.66	99.61	Cr-spinel
2000T-32-BS	386554.5	6097484	0.14	0	17.82	14.82	0.04	0.19	0	52.76	14.28	100.05	Cr-spinel
2000T-32-BS	386554.5	6097484	0.18	0.06	22.37	27.73	0	0.27	0.03	40.05	9.47	100.16	Cr-spinel
2000T-32-BS	386554.5	6097484	0.14	0	20.64	21.94	0	0.08	0	45.24	11.15	99.19	Cr-spinel
2000T-32-BS	386554.5	6097484	0.28	0	21.19	32.83	0	0.3	0	34.76	10.32	99.66	Cr-spinel
2000T-32-BS	386554.5	6097484	0.39	0.15	9.04	32.26	0.06	2.96	0	44.23	9.35	98.44	Cr-spinel
2000T-32-BS	386554.5	6097484	0.09	0.04	18.72	15.61	0	0.1	0	50.18	13.94	98.68	Cr-spinel
2000T-32-BS	386554.5	6097484	0.13	0	17.16	18.39	0	0.14	0	47.98	14.15	97.95	Cr-spinel
2000T-32-BS	386554.5	6097484	0.29	0	20.81	17.77	0	0.1	0	47.58	11.88	98.41	Cr-spinel
2000T-32-BS	386554.5	6097484	0.19	0.04	8.74	29.85	0	4.18	0	38.64	14.86	96.51	Cr-spinel
2000T-32-BS	386554.5	6097484	0.28	0.28	1.98	19.8	28.52	12.89	30.99	0.07	0.9	95.71	Fe-Ti oxide
2000T-32-BS	386554.5	6097484	0.42	0.25	2.43	21.02	31.14	8.81	31.7	0.04	0.95	96.76	Fe-Ti oxide
2000T-32-BS	386554.5	6097484	0.17	0.2	1.25	19.67	29.16	13.34	31.28	0.06	1.1	96.23	Fe-Ti oxide

Table 3: Kimberlite indicator mineral chemistry and classification. (continued)

Mineral Chemistry (0.3 mm)
NOTE:BS = Beach Sand

Sample	Easting	Northing	MnO	Na_2O	Al_2O_3	FeO	SiO_2	TiO_2	CaO	Cr_2O_3	MgO	TOTAL	Classification
2000T-32-BS	386554.5	6097484	0.25	0.43	1.59	20.89	30.48	12.45	30.8	0.02	0.86	97.77	Fe-Ti oxide
2000T-32-BS	386554.5	6097484	15.45	0.03	17.36	16.24	45.02	0.09	4.21	0.04	1.03	99.46	garnet
2000T-32-BS	386554.5	6097484	0.3	0	0	31.29	0	52.46	0.06	2.04	12.11	98.26	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.17	0.08	0.32	31.4	0	51.71	0.01	2.8	12.78	99.27	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.35	0.02	0.11	33.96	0	52.44	0	2.35	11.15	100.38	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.25	0	0.2	31.35	0	50.94	0	2.14	13.12	98	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.26	0	0.07	33.24	0	49.18	0	3.77	12.04	98.55	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.35	0	0.08	34.79	0.02	49.43	0	3.06	10.62	98.36	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.32	0	0.01	37.18	0	50.16	0	3.32	9.53	100.53	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.21	0	0.35	29.63	0	52.09	0	2.63	13.65	98.56	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.38	0	0	34.39	0	49.76	0	3.45	10.97	98.96	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.3	0	0	38.74	0	48.55	0.02	3.02	9.14	99.77	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.29	0.04	0.22	30.95	0	52.3	0	2.22	12.69	98.71	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.25	0.07	0.11	26.61	0.02	56.52	0.01	1.14	14.98	99.71	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.37	0	0.35	32.53	0.02	51.1	0	2.38	11.26	98.01	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.15	0	0.08	32.31	0.05	52.27	0	2.11	11.87	98.86	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.28	0.09	19.74	7.63	43.83	0.37	4.95	3.48	20.14	100.5	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.36	0.04	19.71	6.45	43.57	0.28	4.76	4.26	19.84	99.26	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.4	0.14	20.6	7.56	41.49	0.04	5.71	3.21	20.73	99.86	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.4	0.01	21.7	7.99	41.72	0	4.82	3.53	21.02	101.19	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.58	0.08	19.2	8.76	42.39	0.1	6.31	5.56	18.38	101.36	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.39	0.08	17.34	6.53	42.98	0.06	6.3	6.75	20.57	100.99	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.79	0.15	20.4	7.95	41.57	0.03	5.21	4.75	19.81	100.66	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.5	0.14	19.7	6.82	42.25	0.18	4.93	3.75	21.26	99.54	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.37	0.1	18.91	7.27	42.39	0.15	5.34	4.14	20.49	99.16	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.54	0.06	20.26	7.85	42.83	0.11	5.02	5.25	19.24	101.16	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.36	0.11	20.58	7.44	42.82	0.26	4.62	3.42	19.92	99.54	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.29	0.03	18.91	8.06	41.12	0.07	5.72	6.41	19.67	100.27	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.24	0.03	17.34	6.35	42.5	0.29	5.67	6.86	20.78	100.06	titanian Cr-pyrope (G11)
2000T-32-BS	386554.5	6097484	0.43	0.03	18.98	7.08	41.05	0.32	5.69	6.16	20.19	99.93	titanian Cr-pyrope (G11)
2000T-32-BS	386554.5	6097484	0.53	0.11	18.71	7.12	42.44	0.26	5.48	5.53	20.57	100.77	titanian Cr-pyrope (G11)
2000T-35	386267.97	6101746.5	0.07	0.04	18.25	13.91	0	0.1	0	52.37	15.14	99.88	Cr-spinel
2000T-35	386267.97	6101746.5	0.04	0	9.17	12.78	0.02	0	0	62.7	14.06	98.78	diamond inclusion Cr-spinel
2000T-37	394285.81	6088654	0.41	0	18.22	8	41.6	0.1	4.54	6.86	20.78	100.51	non-titanian Cr-pyrope (G10)
2000T-38	394987.06	6089686.5	0.38	0.14	15.84	27.5	0	0.22	0.04	48.76	7.94	100.83	Cr-spinel
2000T-43	399444.06	6096834	0.14	0	12.61	29.11	0.02	4.23	0	41.89	12.08	100.08	Cr-spinel
2000T-43	399444.06	6096834	0.4	0.12	0.24	35.19	0	51.75	0.02	1.04	9.65	98.41	Mg-ilmenite
2000T-44	396369.22	6096019	0.52	0.1	0	33.61	0	51.08	0	3.41	12.23	100.96	Mg-ilmenite
2000T-44	396369.22	6096019	0.21	0	0.28	41	0	48.41	0.01	0.31	7.5	97.72	Mg-ilmenite
2000T-51	393755.47	6100100.5	0.31	0	0	35.97	0.02	48.4	0	3.26	9.97	97.94	Mg-ilmenite
2000T-53	399544.66	6095816.5	14.48	0.03	21.08	22.37	37.18	0.28	3.11	0.09	2.41	101.03	garnet
2000T-56	397265.06	6103193	0.54	0.08	0.1	32.84	0.1	49.79	0	3.09	11.31	97.85	Mg-ilmenite
2000T-56	397265.06	6103193	0.49	0	21.26	8.17	42.04	0	4.91	3.37	19.82	100.06	non-titanian Cr-pyrope (G9)
2000T-58	395716.94	6102027.5	0.34	0	16.87	25.11	0	0.3	0	45.69	11.04	99.35	Cr-spinel
2000T-60	395773.38	6101007	0.19	0.04	8.7	36.86	0.11	5.75	0.02	30.35	15.5	97.52	Cr-spinel
2000T-61	392900.03	6100991	0.1	0	15.78	21.53	0.15	2.37	0	42.94	15.66	98.54	Cr-spinel

Table 3: Kimberlite indicator mineral chemistry and classification. (continued)

Mineral Chemistry (0.3 mm)
NOTE:BS = Beach Sand

Sample	Easting	Northing	MnO	Na_2O	Al_2O_3	FeO	SiO_2	TiO_2	CaO	Cr_2O_3	MgO	TOTAL	Classification
2000T-61	392900.03	6100991	0.38	0.06	18.45	7.71	41.5	0.15	5.4	6.52	20.11	100.29	non-titanian Cr-pyrope (G9)
2000T-66	394714.06	6096812	0.61	0	6.08	37.26	0.02	5.47	0	38.98	10.3	98.73	Cr-spinel
2000T-68-BS	399084.13	6101491	0.48	0	1.05	41.87	0	3.91	0	44.88	6.75	98.93	Cr-spinel
2000T-68-BS	399084.13	6101491	0.13	0	9.75	35.99	0.02	4.46	0	37.5	10.9	98.75	Cr-spinel
2000T-68-BS	399084.13	6101491	0.05	0	29.47	15.38	0	0.24	0	38.02	16.13	99.3	Cr-spinel
2000T-68-BS	399084.13	6101491	0.26	0	7.63	37.03	0	6.55	0	37.74	9.33	98.54	Cr-spinel
2000T-68-BS	399084.13	6101491	0.15	0.02	24.49	23.51	0.16	1.15	0	36.64	14.02	100.14	Cr-spinel
2000T-68-BS	399084.13	6101491	0.33	0	1.23	32.9	0.04	3.3	0	53.27	8.2	99.26	Cr-spinel
2000T-68-BS	399084.13	6101491	0.02	0	11.95	24.27	0	2.56	0	46.85	12.15	97.8	Cr-spinel
2000T-68-BS	399084.13	6101491	0.07	0.06	17.66	14.95	0	0.26	0	52.78	15	100.78	Cr-spinel
2000T-68-BS	399084.13	6101491	0.47	0	15.69	24.95	0	0.34	0	46.83	10.52	98.8	Cr-spinel
2000T-68-BS	399084.13	6101491	0.45	0	14.63	27.85	0.35	0.3	0.03	48.04	7.91	99.56	Cr-spinel
2000T-68-BS	399084.13	6101491	1.26	0	3.85	24.75	37.07	0.33	31.35	0.06	0.55	99.22	Fe-Ti oxide
2000T-68-BS	399084.13	6101491	0.26	0.31	2.01	21.18	31.88	9.28	31.4	0.13	0.9	97.37	Fe-Ti oxide
2000T-68-BS	399084.13	6101491	0.18	0	0.42	38.85	0	47.75	0	1.28	9.61	98.1	Mg-ilmenite
2000T-68-BS	399084.13	6101491	0.18	0	0.18	33.41	0	50.54	0	2.9	10.75	97.97	Mg-ilmenite
2000T-68-BS	399084.13	6101491	0.37	0	0.22	33.2	0	50.15	0	3.85	11.49	99.29	Mg-ilmenite
2000T-68-BS	399084.13	6101491	0.25	0	0.2	41.26	0	50.05	0	0.02	6.95	98.73	Mg-ilmenite
2000T-68-BS	399084.13	6101491	0.33	0	0.04	34.38	0	49.52	0	2.65	11.19	98.12	Mg-ilmenite
2000T-68-BS	399084.13	6101491	0.3	0	0.52	28.48	0.1	51.45	0.01	3.49	14.37	98.73	Mg-ilmenite
2000T-68-BS	399084.13	6101491	0.27	0.1	0.04	30.44	0	52.42	0	3.36	12.81	99.44	Mg-ilmenite
2000T-68-BS	399084.13	6101491	0.38	0.17	18.27	7.29	41.04	0.09	5.47	6.49	19.54	98.73	non-titanian Cr-pyrope (G9)
2000T-69	398290.31	6099503.5	0.06	0.02	8.51	23.24	0	3.37	0	48.85	16.13	100.17	Cr-spinel
2000T-69	398290.31	6099503.5	0.51	0.08	16.34	26.82	0	0.24	0.01	46.34	9.89	100.24	Cr-spinel
2000T-73	402783.03	6105930.5	0.34	0	20.99	17.45	0	0.12	0	47.3	13.02	99.22	Cr-spinel
2000T-73	402783.03	6105930.5	0.29	0.02	0.38	28.61	0	52.37	0.04	2.67	13.72	98.08	Mg-ilmenite
2000T-83	408701.53	6106066.5	0.23	0.07	18.7	18.48	0	0.01	0	49.16	12.21	98.87	Cr-spinel
2000T-90	391117.84	6091481.5	0.39	0.12	14.8	23.29	0	0.26	0	53.03	8.44	100.34	Cr-spinel
2000T-90	391117.84	6091481.5	0.41	0	22.38	17.16	0	0.01	0	45.43	14.16	99.54	Cr-spinel
2000T-90	391117.84	6091481.5	0.37	0	0.32	34.71	0	52.9	0	0.34	11.07	99.71	Mg-ilmenite
2000T-90	391117.84	6091481.5	0.5	0.09	17.75	7.23	41.93	0	5.44	6.78	20.79	100.51	non-titanian Cr-pyrope (G9)
2000T-92-BS	391102.75	6092944.5	0.17	0.08	0.59	29.79	0	52.44	0	3.19	13.42	99.69	Mg-ilmenite
2000T-92-BS	391102.75	6092944.5	0.39	0.01	20.24	7.46	42.51	0.15	5.04	4.92	20.53	101.26	non-titanian Cr-pyrope (G9)
2000T-92-BS	391102.75	6092944.5	0.34	0.16	19.69	6.8	42.34	0.09	5.08	5.76	19.59	99.85	non-titanian Cr-pyrope (G9)
2000T-92-BS	390579.66	6092302.5	0.36	0.04	19.31	8.07	42.32	0.28	5.36	4.13	20.52	100.38	titanian Cr-pyrope (G11)
2000T-92-BS	391102.75	6092944.5	0.4	0.09	19.96	7.02	42.73	0.51	4.29	3.7	20.6	99.3	titanian Cr-pyrope (G11)/(G10)
2000T-93	389781.91	6092662	0.27	0.09	18.29	6.91	40.59	0.31	4.95	5.96	21.31	98.69	titanian Cr-pyrope (G11)/(G10)
2000T-94	389081.13	6092532	0.2	0.02	16.4	14.7	0	0.22	0	53.72	14.68	99.94	Cr-spinel
2000T-94	389081.13	6092532	0.4	0.08	0.56	35.21	0	50.03	0	1.69	10.33	98.31	Mg-ilmenite
2000T-94	389081.13	6092532	0.35	0.16	20.75	7.96	41.74	0.47	4.41	3.96	21.32	101.12	titanian Cr-pyrope (G11)/(G10)
2000T-100	390771.78	6095004	0.19	0	0.11	28.2	0	51.66	0	5.02	13.44	98.63	Mg-ilmenite
2000T-102	392650.41	6096653	0.06	0	22.87	18.51	0	1.37	0	41.14	16.28	100.23	Cr-spinel
2000T-102	392650.41	6096653	0	0.16	30.8	16.05	0.2	0.62	0	35.63	14.93	98.37	Cr-spinel
2000T-102	392650.41	6096653	0	0	17.39	13.94	0	0.25	0	52.78	15.35	99.72	Cr-spinel
2000T-102	392650.41	6096653	0.25	0.08	0	35.02	0	50.28	0	1.93	10.53	98.1	Mg-ilmenite
2000T-102	392650.41	6096653	0.33	0	0.51	39.76	0	50.19	0.02	0.12	9.92	100.86	Mg-ilmenite
2000T-103	391819.38	6096113	0.15	1.64	2.01	2.8	56.11	0.23	18.92	2.13	16.63	100.62	chrome diopside
2000T-103	391819.38	6096113	0.33	0	0.97	28.79	0.06	1.36	0	58.81	8.51	98.82	Cr-spinel
2000T-103	391819.38	6096113	2.15	0.13	3.63	49.64	0.11	0.12	0.01	41.53	0.13	97.45	Cr-spinel
2000T-103	391819.38	6096113	0.02	0.12	20.99	20.84	0	1.43	0	41.68	14.41	99.49	Cr-spinel
2000T-103	391819.38	6096113	0.31	0.13	8.9	29.02	0.06	2.97	0	43.31	13.74	98.42	Cr-spinel
2000T-103	391819.38	6096113	0.37	0.02	0.15	32.21	0	51.82	0	2.09	12.71	99.37	Mg-ilmenite
2000T-103	391819.38	6096113	0.3	0	0.03	34.05	0	50.22	0	3.06	10.49	98.15	Mg-ilmenite
2000T-103	391819.38	6096113	0.26	0	0.1	34.55	0	48.38	0	3.55	10.75	97.59	Mg-ilmenite
2000T-103	391819.38	6096113	0.2	0.06	0.1	26.64	0	54.69	0	2.56	16.38	100.64	Mg-ilmenite

Table 3: Kimberlite indicator mineral chemistry and classification. (continued)

Mineral Chemistry (0.3 mm)
NOTE:BS = Beach Sand

Sample	Easting	Northing	MnO	Na_2O	Al_2O_3	FeO	SiO_2	TiO_2	CaO	Cr_2O_3	MgO	TOTAL	Classification
2000T-103	391819.38	6096113	0.4	0.06	0	37.43	0	48.7	0	2.98	9.96	99.54	Mg-ilmenite
2000T-103	391819.38	6096113	0.35	0	0.24	33.81	0.02	49.02	0	3.38	11.52	98.34	Mg-ilmenite
2000T-103	391819.38	6096113	0.46	0	0.07	34.4	0.02	51.23	0	2.04	11.07	99.29	Mg-ilmenite
2000T-103	391819.38	6096113	0.54	0.06	0.03	30.36	0.02	51.59	0	5.06	12.75	100.41	Mg-ilmenite
2000T-103	391819.38	6096113	0.3	0	20.26	7.7	43	0.11	5.26	4.44	20.14	101.2	non-titanian Cr-pyrope (G9)
2000T-103	391819.38	6096113	0.33	0	16.87	6.82	42.78	0.2	6.06	7.78	19.88	100.73	non-titanian Cr-pyrope (G9)
2000T-103	391819.38	6096113	0.47	0.08	19.69	7.82	41.21	0.19	5.32	5.78	20.61	101.16	non-titanian Cr-pyrope (G9)
2000T-103	391819.38	6096113	0.29	0	19.05	7.2	41.32	0.14	5.3	6.75	21.18	101.24	non-titanian Cr-pyrope (G9)
2000T-103	391819.38	6096113	0.4	0.08	19.18	7.65	41.74	0.29	5.3	5.68	21.15	101.48	titanian Cr-pyrope (G11)
2000T-103	391819.38	6096113	0.3	0.18	18.39	7.16	41.11	0.36	5.83	5.48	20.55	99.35	titanian Cr-pyrope (G11)
2000T-104	390131.41	6099288.5	0.23	0.04	8.14	27.05	0	2.95	0	47.73	13.42	99.56	Cr-spinel
2000T-104	390131.41	6099288.5	0.38	0.11	18.48	7.78	43.28	0.42	5.14	4.9	19.56	100.05	titanian Cr-pyrope (G11)
2000T-105-BS	390189.03	6100414.5	0.57	0.03	19.24	7.39	42.6	0.08	4.89	4.36	20.36	99.53	non-titanian Cr-pyrope (G9)
2000T-107	388936.94	6101455.5	0.05	0.07	29.04	16.05	0.04	0.49	0	36.38	17.15	99.26	Cr-spinel
2000T-107	388936.94	6101455.5	0.27	0	16.92	14.43	0	0.21	0	53.75	15.21	100.79	Cr-spinel
2000T-109	386132.81	6096368	0.31	0.06	21.87	23.91	0.06	0.1	0	40.64	11.67	98.61	Cr-spinel
2000T-112	392762.47	6099792.5	0.51	0	12.9	33.42	0.06	0.3	0	47.02	6.4	100.62	Cr-spinel
2000T-112	392762.47	6099792.5	0.3	0.13	0.01	32.84	0	50.81	0.03	2.27	11.54	97.93	Mg-ilmenite
2000T-118	391438.41	6097052	0.25	0.11	18.22	7.35	41.09	0.17	5.55	7.52	20.45	100.71	non-titanian Cr-pyrope (G9)
2000T-120-BS	388195.31	6096944	0.42	0.04	18.44	7.83	41.28	0.04	5.89	6.99	20.17	101.09	non-titanian Cr-pyrope (G9)
2000T-120-BS	388195.31	6096944	0.42	0.14	19.47	8.24	41.75	0.04	6.47	4.98	18.92	100.42	non-titanian Cr-pyrope (G9)
2000T-123-BS	391854.41	6098769	0.41	0	18.02	32.79	0	0.6	0	40.39	5.34	97.56	Cr-spinel
2000T-123-BS	391854.41	6098769	0.3	0.17	20.61	30.03	0	0.27	0	38.92	8.12	98.42	Cr-spinel
2000T-123-BS	391854.41	6098769	0.44	0.11	20.34	7.42	42.91	0.28	4.64	3.83	20.86	100.82	non-titanian Cr-pyrope (G9)
2000T-125	388349.84	6102123.5	0.23	0.16	12.08	33.62	0	0.39	0	45.76	7.14	99.37	Cr-spinel
2000T-127	390127.16	6103821.5	0.13	0	16.6	22.35	0.15	1.46	0	44.27	14.9	99.86	Cr-spinel
2000T-127	390127.16	6103821.5	0.07	0	16.84	26.97	0	1.9	0	40.03	13.2	99.01	Cr-spinel
2000T-129	391955.44	6103866	0.36	0	0.03	35.09	0	49.35	0	3.18	11.77	99.78	Mg-ilmenite
2000T-129	391955.44	6103866	0.56	0.14	17.45	6.83	42.09	0.27	5.61	6.86	19.9	99.7	titanian Cr-pyrope (G11)
2000T-133-BS	395632.94	6104304.5	0.85	0	11.57	30.7	0	0.03	0	50.09	5.29	98.56	Cr-spinel
2000T-133-BS	395632.94	6104304.5	0.04	0	16.59	17.73	0.04	0.02	0	52.91	12.74	100.07	Cr-spinel
2000T-135	398475.94	6100648.5	0	0	38.53	13.83	0	0.29	0	27.22	18.55	98.42	Cr-spinel
2000T-136	397807	6101720	0.27	0	7.75	25.53	0	2.57	0	48.67	14.32	99.1	Cr-spinel
2000T-139	401013.91	6102969	0.19	0	15.03	36.17	0	0.23	0	46.93	1.9	100.45	Cr-spinel
2000T-139	401013.91	6102969	0.26	0.08	19	7.48	41.32	0.55	5.34	4.97	21.79	100.78	titanian Cr-pyrope (G11)
2000T-140	396582.16	6102405	0.24	0	6.51	25.14	0.04	4.19	0	48.47	15.27	99.87	Cr-spinel
2000T-144-BS	399564.03	6104786	0.32	0.01	17.66	7.32	43.08	0.18	4.97	5.91	20.77	100.22	non-titanian Cr-pyrope (G9)/(G10)
2000T-150-BS	402269.28	6106540	0.31	0.12	18.2	25.47	0.04	3.32	0.03	38.61	12.77	98.86	Cr-spinel
2000T-150-BS	402269.28	6106540	0.09	0	21.57	16.3	0	0.12	0	47.28	13.79	99.14	Cr-spinel
2000T-150-BS	402269.28	6106540	0.12	0	17.3	31.64	0.1	2.85	0	34.35	13.81	100.16	Cr-spinel
2000T-150-BS	402269.28	6106540	0.13	0	18.3	15.22	0	0.27	0	52.7	14.14	100.76	Cr-spinel
2000T-150-BS	402269.28	6106540	0.05	0	31.9	19.85	0.04	1.24	0	31.34	16.11	100.54	Cr-spinel
2000T-150-BS	402269.28	6106540	0.22	0	9.6	32.57	0.08	3.45	0	42.28	12.07	100.26	Cr-spinel
2000T-150-BS	402269.28	6106540	0.14	0	7.02	31.47	0.04	4.22	0	42	12.87	97.76	Cr-spinel
2000T-150-BS	402269.28	6106540	0.25	0	22.25	17.84	0	0.08	0	48.07	12.41	100.89	Cr-spinel
2000T-150-BS	402269.28	6106540	0.35	0.23	18.1	24.46	0	2.37	0	46.12	9.41	101.04	Cr-spinel
2000T-150-BS	402269.28	6106540	2.04	0	5.24	41.59	0.11	0.14	0	50.02	0.66	99.8	Cr-spinel
2000T-150-BS	402269.28	6106540	0.29	0.1	0.17	32.34	0.06	48.66	0	4.55	12.33	98.49	Mg-ilmenite
2000T-150-BS	402269.28	6106540	0.26	0.02	0.1	27.51	0	54.56	0	1.33	15.09	98.86	Mg-ilmenite

Table 3: Kimberlite indicator mineral chemistry and classification. (continued)

Mineral Chemistry (0.3 mm)
NOTE:BS = Beach Sand

Sample	Easting	Northing	MnO	Na_2O	Al_2O_3	FeO	SiO_2	TiO_2	CaO	Cr_2O_3	MgO	TOTAL	Classification
2000T-150-BS	402269.28	6106540	0.5	0.11	19.11	7.44	40.95	0.16	4.62	6.28	21.22	100.39	non-titanian Cr-pyrope (G10)
2000T-150-BS	402269.28	6106540	0.49	0.03	19.51	7.72	42.3	0.22	4.2	5	21.46	100.92	non-titanian Cr-pyrope (G10)
2000T-150-BS	402269.28	6106540	0.69	0	21.19	8.53	41.64	0	5.51	2.94	19.22	99.73	non-titanian Cr-pyrope (G9)
2000T-150-BS	402269.28	6106540	0.54	0.03	22.84	9.85	41.55	0.15	4.92	1.96	19.11	100.94	non-titanian Cr-pyrope (G9)
2000T-150-BS	402269.28	6106540	0.39	0.03	20.18	8.67	43.3	0.02	5.43	2.99	18.99	100	non-titanian Cr-pyrope (G9)
2000T-150-BS	402269.28	6106540	0.2	0.07	18.36	7.42	42.33	0.34	5.6	6.87	19.21	100.4	titanian Cr-pyrope (G11)
2000T-153	403857.41	6108381	0.11	0	13.65	19.56	0	0.23	0	52.69	13.17	99.41	Cr-spinel
2000T-156-BS	402443.84	6108400.5	0.21	0	19.7	26.67	0.12	1.39	0	40.33	11.92	100.34	Cr-spinel
2000T-158-BS	401627.13	6107942.5	0.03	1.93	2.7	2.95	54.65	0.24	18.74	1.74	16.68	99.67	chrome diopside
2000T-158-BS	401627.13	6107942.5	0.32	0.13	20.36	8.16	43.69	0.22	4.87	3.06	20.66	101.48	non-titanian Cr-pyrope (G9)
2000T-159	401165.03	6107954.5	0.27	0.16	9.82	32.34	0.02	0.07	0	49.98	6.6	99.26	Cr-spinel
2000T-161	409503.97	6110965.5	0.66	0	19.7	32.02	0	0.03	0	41.61	4.49	98.5	Cr-spinel
2000T-161	409503.97	6110965.5	0.49	0.01	19.89	7.99	41.53	0.33	4.96	5.15	19.55	99.91	titanian Cr-pyrope (G11)
2000T-163-BS	407938.84	6110567.5	0.28	0.06	0.26	32.08	0.04	52.09	0.02	1.72	13.1	99.64	Mg-ilmenite
2000T-166	406114.34	6111079	0.13	0.02	6.61	22.25	0.09	1.78	0	54.9	14.74	100.52	Cr-spinel
2000T-166	406114.34	6111079	0.26	0.04	17.41	23.52	0.04	0.29	0.02	47.22	11.68	100.48	Cr-spinel
2000T-166	406114.34	6111079	0.31	0	0	36.6	0	48.05	0	2.88	9.62	97.47	Mg-ilmenite
2000T-166	406114.34	6111079	0.6	0.08	19.85	7.57	42.98	0.16	5.18	4.54	19.91	100.88	non-titanian Cr-pyrope (G9)
2000T-166	406114.34	6111079	0.48	0.03	20.55	7.97	41.66	0.03	5.03	4.31	19.78	99.83	non-titanian Cr-pyrope (G9)
2000T-166	406114.34	6111079	0.42	0.11	20.48	7.77	41.86	0.33	4.55	4.74	20.07	100.34	titanian Cr-pyrope (G11)/(G10)
2000T-167	404689.56	6110332	0.12	0	7.58	28.37	0	3.22	0	46.81	11.73	97.83	Cr-spinel
2000T-172-BS	387049.19	6098700.5	0.34	0	0.31	35.96	0.02	49.5	0.04	1.64	12.2	100.02	Mg-ilmenite
2000T-175-BS	388265.75	6102950	0.24	0.19	12.41	29.37	0	3.66	0	40.81	12.94	99.62	Cr-spinel
2000T-175-BS	388265.75	6102950	0.08	0.02	17.01	13.87	0	0.18	0	52.11	16.08	99.35	Cr-spinel
2000T-175-BS	388265.75	6102950	0.42	0.04	17.63	29.85	0.04	0.5	0	44.99	5.88	99.35	Cr-spinel
2000T-175-BS	388265.75	6102950	0.39	0	0	38.86	0.02	47.51	0	2.04	8.76	97.59	Mg-ilmenite
2000T-175-BS	388265.75	6102950	0.29	0.08	0.13	36	0.06	47.13	0	3.82	10.27	97.77	Mg-ilmenite
2000T-175-BS	388265.75	6102950	0.38	0.11	20.96	7.56	41.5	0.23	4.86	3.52	20.64	99.76	non-titanian Cr-pyrope (G9)
2000T-175-BS	388265.75	6102950	0.32	0	19.57	7.47	43.97	0.09	5.25	5.28	19.23	101.18	non-titanian Cr-pyrope (G9)
2000T-175-BS	388265.75	6102950	0.46	0.12	16.81	7.6	41.84	0.47	6.15	7.58	19.48	100.52	titanian Cr-pyrope (G11)
2000T-176-BS	387771.91	6102468.5	0.12	2.51	2.77	3.35	54.97	0.27	18.33	1.9	15.08	99.3	chrome diopside
2000T-176-BS	387771.91	6102468.5	0.28	0	16.28	26.45	0.02	0.33	0	46.88	10.05	100.29	Cr-spinel
2000T-176-BS	387771.91	6102468.5	0.42	0	14.48	37.3	0.06	2.57	0	42.34	3.63	100.81	Cr-spinel
2000T-176-BS	387771.91	6102468.5	0.32	0	0	36.78	0	47.27	0	3.38	9.77	97.53	Mg-ilmenite
2000T-176-BS	387771.91	6102468.5	0.43	0	0.04	31.07	0.14	51.32	0	3.74	11.88	98.62	Mg-ilmenite
2000T-177	386911.66	6102253	0.56	0.07	13.83	38.01	0	0.19	0	43.4	3.51	99.57	Cr-spinel
2000T-177	386911.66	6102253	0.28	0	9.32	33.77	0.06	6.49	0	37.81	12.34	100.06	Cr-spinel
2000T-177	386911.66	6102253	0.52	0.05	9.13	38.07	0	0.18	0.01	47.95	3.58	99.48	Cr-spinel
2000T-178	383961.5	6096975	0.34	0	10.51	41.38	0	0.67	0	40.93	4.86	98.69	Cr-spinel
2000T-178	383961.5	6096975	0.45	0.25	2.31	22.98	32.99	7.95	31.72	0.05	0.67	99.36	Fe-Ti oxide
2000T-180	383572.19	6099390	0.16	0.19	21.22	40.72	37.01	0.06	0.49	0.05	1.43	101.32	garnet
2000T-180	383572.19	6099390	0.42	0.14	22.1	7.1	42.16	0.24	5.29	2.33	20.41	100.21	non-titanian Cr-pyrope (G9)/(G10)
2000T-182	385706.34	6102721	0.33	0	7.36	40.2	0.1	5.62	0.01	31.67	12.84	98.12	Cr-spinel
2000T-182	385706.34	6102721	0.32	0	0.17	33.64	0	50.71	0.01	1.83	12.06	98.74	Mg-ilmenite
2000T-201	376329.06	6099848.5	0.47	0.14	11.61	39.27	0	0.96	0.02	46.65	0.93	100.05	Cr-spinel
2000T-201	376329.06	6099848.5	0.25	0	13.46	29.5	0.23	2.38	0.02	43.18	11.48	100.49	Cr-spinel
2000T-201	376329.06	6099848.5	0.4	0.07	1.12	26	33.98	3.89	32.4	0.03	0.31	98.2	Fe-Ti oxide
2000T-201	376329.06	6099848.5	0.19	0	0.43	34.57	0	51.69	0.05	1.05	11.78	99.76	Mg-ilmenite
2000T-204	379288.84	6099045.5	0.66	0	10.84	33.16	0	0.2	0	48.45	6.76	100.08	Cr-spinel

Table 3: Kimberlite indicator mineral chemistry and classification. (continued)

Mineral Chemistry (0.3 mm)
NOTE:BS = Beach Sand

Sample	Easting	Northing	MnO	Na_2O	Al_2O_3	FeO	SiO_2	TiO_2	CaO	Cr_2O_3	MgO	TOTAL	Classification
2000T-204	379288.84	6099045.5	0.25	0	0.04	32.52	0	50.75	0	3.72	11.73	99	Mg-ilmenite
2000T-205	377938.81	6100685	0.39	0	0.03	33.13	0	50.79	0	3.43	11.39	99.16	Mg-ilmenite
2000T-205	377938.81	6100685	0.31	0	0.03	33.45	0.06	50.73	0	3.82	10.55	98.95	Mg-ilmenite
2000T-206	376715.94	6102116	0.25	0.04	9.02	30.87	0.06	5.05	0	38.85	15.44	99.59	Cr-spinel
2000T-209	377791.78	6097599.5	0.45	0	0.01	33.28	0	50.21	0	3.53	10.91	98.41	Mg-ilmenite
2000T-210	378771.63	6097898.5	0.2	0.08	8.55	27.79	0.06	4.49	0	42.42	15.11	98.7	Cr-spinel
2000T-211	386750.13	6103960.5	0.24	0	0.18	32.76	0.04	52.31	0	2.51	10.97	99	Mg-ilmenite
2000T-213	381556.81	6105384.5	0.18	0.14	2.07	20.6	29.2	11.77	31.89	0.06	1.2	97.11	Fe-Ti oxide
2000T-214	380459.88	6105602	1.47	0	11.77	35.51	0.04	3.42	0	40.13	6.89	99.23	Cr-spinel
2000T-216	383573.22	6109146.5	0.13	0.08	8.55	27.18	0.06	3.33	0	46.59	13.89	99.81	Cr-spinel
2000T-218	389764	6111144	0.23	0	11.95	29.95	0.04	0.24	0	49.17	6.99	98.57	Cr-spinel
2000T-218	389764	6111144	0.3	0.14	0.41	29.01	0	51.42	0	5.41	13.37	100.06	Mg-ilmenite
2000T-219	390098.19	6111950	0.11	0	8.15	33.98	0	6.13	0	35.47	15.65	99.49	Cr-spinel
2000T-228	386397.94	6109043.5	0	0	18.34	14.55	0	0.17	0	53.22	14.78	101.05	Cr-spinel
2000T-228	386397.94	6109043.5	0.15	0.04	7.24	29.89	0	3.15	0	44.21	13.97	98.65	Cr-spinel
2000T-234	392301.84	6112182.5	0.6	0	20.36	8.2	42.48	0.06	5.73	3.81	19.25	100.5	non-titanian Cr-pyrope (G9)
2000T-242	381725.97	6118149.5	0.29	0	22.08	16.46	0.04	0.15	0	46.85	14.79	100.67	Cr-spinel
2000T-242	381725.97	6118149.5	0.41	0	2.8	26.51	0	2.88	0	56.2	10.19	99	Cr-spinel
2000T-242	381725.97	6118149.5	1.02	0.2	6.83	20.11	0.33	0.14	0	63.81	8.97	101.4	Cr-spinel
2000T-246	389829.19	6119804.5	0.62	0.15	0	37.08	0.02	47.49	0	2.92	9.68	97.97	Mg-ilmenite
2000T-247	387542.09	6120739.5	27.44	0.14	19.1	13	37.78	0.12	1.27	0.08	0.57	99.51	spessartite
2000T-252	390174.03	6112731	0.28	0	5.49	28.83	0.06	3.3	0	49.33	12.13	99.41	Cr-spinel
2000T-252	390174.03	6112731	0.39	0.04	18.02	16.78	0	0.12	0	50.02	13.94	99.33	Cr-spinel
2000T-252	390174.03	6112731	0.37	0	14.75	27.92	0	0.19	0	49.24	7.89	100.36	Cr-spinel
2000T-252	390174.03	6112731	0.26	0.06	14.11	25.44	0.02	0.28	0	53.39	7.11	100.67	Cr-spinel
2000T-253	395615.16	6113826.5	0.02	0	32.41	14.13	0.22	0.48	0	36.21	17.88	101.36	Cr-spinel
2000T-253	395615.16	6113826.5	0.27	0	18.81	14.99	0.01	0.25	0.06	49.86	13.79	98.05	Cr-spinel
2000T-253	395615.16	6113826.5	0.24	0.02	0.13	30.61	0	51.68	0	3.02	12.16	97.86	Mg-ilmenite
2000T-254	396711.59	6114399	0.22	0	19.33	22.08	0.12	2.13	0	40.04	15.76	99.68	Cr-spinel
2000T-255	398099.66	6117886.5	0.35	0.02	10.24	34.45	0	0.34	0	48.81	6.6	100.81	Cr-spinel
2000T-255	398099.66	6117886.5	0.12	0	23.01	19.27	0	0.09	0	44.14	13.53	100.15	Cr-spinel
2000T-256	403018.75	6120422	0.14	0	13.2	34.08	0.04	6.58	0	31.78	11.96	97.78	Cr-spinel
2000T-259	394433.78	6120179.5	0.81	0.07	13.1	34.31	0.06	0.31	0	48.4	1.86	98.92	Cr-spinel
2000T-259	394433.78	6120179.5	0.25	0	0.23	44.39	0	45.08	0	0.43	6.57	96.95	Mg-ilmenite
2000T-260	392810.16	6120480.5	0.01	0	7.62	32.1	0	3.44	0	45.4	9.68	98.26	Cr-spinel
2000T-261	395856.13	6121526	0.08	0	17.9	14.34	0.02	0.14	0	51.93	14.84	99.25	Cr-spinel
2000T-262	382201.84	6113313	0.46	0.13	16.95	7.63	42.19	0.29	6.22	7.57	18	99.44	titanian Cr-pyrope (G11)
2000T-264	380485.66	6115711.5	0.37	0.3	2.18	19.66	30.47	11.7	31.43	0.02	0.99	97.13	Fe-Ti oxide
2000T-264	380485.66	6115711.5	0.57	0.05	22.32	21.95	40.85	0.21	5.61	0.11	9.27	100.94	garnet
2000T-264	380485.66	6115711.5	0.27	0.08	21.22	7.24	42.85	0.16	5.08	4.67	19.77	101.35	non-titanian Cr-pyrope (G9)
2000T-268	378764	6115647	0.32	0.02	0.1	34.69	0.11	48.41	0	4.26	9.75	97.65	Mg-ilmenite
2000T-273	379539.09	6113473	0.37	0.02	0.16	34.38	0	49.75	0	4.62	9.89	99.19	Mg-ilmenite
2000T-273	379539.09	6113473	0.39	0.04	20.65	7.66	43.14	0.02	5.31	4.61	18.49	100.31	non-titanian Cr-pyrope (G9)
2000T-274	378643.41	6113610	0.38	0	0.01	32.83	0.06	50.2	0	4.32	11.24	99.04	Mg-ilmenite
2000T-274	378643.41	6113610	0.26	0.02	0.65	31.13	0	51.86	0	2.85	11.33	98.11	Mg-ilmenite
2000T-277	376521.69	6112449.5	0.33	0	7.05	29.73	0.13	3.95	0	45.08	12.67	98.95	Cr-spinel
2000T-278	375920.22	6119958.5	0.13	0	7.15	30.24	0	4.19	0	42.56	13.28	97.55	Cr-spinel
2000T-280	377783.25	6117499.5	0.1	0	16.8	15.33	0.02	0.11	0	53.15	14.4	99.91	Cr-spinel
2000T-280	377783.25	6117499.5	0.25	0.06	0	33.74	0.06	51.28	0	3.05	10.6	99.04	Mg-ilmenite
2000T-280	377783.25	6117499.5	0.52	0.07	18.43	7.34	41.84	0.2	5.82	6.87	19	100.08	non-titanian Cr-pyrope (G9)
2000T-280	377783.25	6117499.5	0.34	0.05	19.79	7.33	42.12	0.31	5.06	5.05	20.32	100.36	titanian Cr-pyrope (G11)
2000T-282	374344.63	6110827.5	0.48	0	0.34	31.78	0	51.91	0.01	2.21	11.23	97.97	Mg-ilmenite
2000T-283	372750.41	6110253.5	0.39	0.02	0.06	37.64	0	48.52	0	3.08	8.62	98.32	Mg-ilmenite
2000T-284	371076.44	6112518.5	0.22	0.02	18.52	16.97	0.01	0.13	0.09	51.45	11.53	98.94	Cr-spinel
2000T-289	377610.78	6110969	0.31	0.02	13.46	19.64	0.02	0.33	0	53.07	12.24	99.1	Cr-spinel
2000T-289	377610.78	6110969	0.19	0	8.69	30.99	0	3.24	0	43.14	13.33	99.59	Cr-spinel
2000T-290	382417.03	6114793	0.19	0	25.01	27.61	0	0.05	0	35.01	10.72	98.59	Cr-spinel
2000T-290	382417.03	6114793	0.19	0.15	10.28	27.56	0.08	3.86	0	43.72	12.69	98.53	Cr-spinel

Table 3: Kimberlite indicator mineral chemistry and classification. (continued)

Mineral Chemistry (0.3 mm)
NOTE:BS = Beach Sand

Sample	Easting	Northing	MnO	Na_2O	Al_2O_3	FeO	SiO_2	TiO_2	CaO	Cr_2O_3	MgO	TOTAL	Classification
2000T-290	382417.03	6114793	0.47	0.09	19.14	7.04	41.93	0.23	5.07	6.04	20.29	100.3	non-titanian Cr-pyrope (G9)/(G10)
2000T-291	383696.41	6115010.5	0.13	0	16.94	14.99	0	0.21	0	52.64	13.58	98.48	Cr-spinel
2000T-294	388431.34	6117653	0.34	0	0.34	44.43	0	47.23	0.06	0	6.18	98.58	Mg-ilmenite
2000T-295	390772.88	6115942.5	0.21	0.04	21.62	16.24	0	0.25	0	47.29	14.55	100.2	Cr-spinel
2000T-295	390772.88	6115942.5	0	0	18.29	14.4	0	0.11	0	53.57	14.44	100.82	Cr-spinel
2000T-295	390772.88	6115942.5	0.33	0	0.04	35.74	0	50.17	0	2.9	9.6	98.78	Mg-ilmenite
2000T-299	389554.72	6118795.5	0.29	0	16.62	25.55	0	0.13	0	47.19	9.18	98.96	Cr-spinel
2000T-303	399031.28	6117196.5	0.09	0	23.04	15.56	0	0.28	0	45.84	15.25	100.07	Cr-spinel
2000T-305	394394.06	6121113	0.19	0.23	0.23	30.2	0	52.52	0.01	2.53	12.31	98.21	Mg-ilmenite
2000T-310	386862.44	6121457.5	0.34	0.12	21.97	18.23	0	0	0	47.03	12.92	100.6	Cr-spinel
2000T-312	401764.13	6124868	0.25	0.18	23.44	22.84	0	0.01	0	43.32	9.78	99.83	Cr-spinel
2000T-316	393563.53	6115607.5	0.28	0	0.03	36.13	0.06	47.77	0	4.37	9.7	98.33	Mg-ilmenite
2000T-317	395119.63	6116693	0.29	0.1	0.3	31.26	0	53.27	0	2.47	13.15	100.84	Mg-ilmenite
2000T-317	395119.63	6116693	0.37	0	0.46	37.02	0.06	50.05	0.01	0.67	9.98	98.61	Mg-ilmenite
2000T-320	393461.94	6117975	0.27	0	9.22	32.93	0.06	4.65	0	37.8	13.32	98.26	Cr-spinel
2000T-324	405468.59	6118863.5	0.56	0.08	20.77	8.2	42.42	0.15	4.84	4.3	20.14	101.47	non-titanian Cr-pyrope (G9)
2000T-326	403152.28	6115757.5	0.87	0.16	10.45	32.77	0.18	0.34	0.12	50.93	1.97	97.78	Cr-spinel
2000T-326	403152.28	6115757.5	0.45	0	20.98	20.49	0	0.09	0	46.36	11.63	100	Cr-spinel
2000T-327	401644.22	6117724	0.26	0	15.46	28.92	0	0.28	0	49.14	4.9	98.96	Cr-spinel
2000T-327	401644.22	6117724	0.52	0	16.79	23.56	0.15	0.16	0	49.98	8.92	100.08	Cr-spinel
2000T-327	401644.22	6117724	0.5	0.08	17	27.78	0	0.07	0	47.46	6.98	99.87	Cr-spinel
2000T-327	401644.22	6117724	0.36	0.08	0.47	34.03	0.06	48.42	0	5.21	10.58	99.21	Mg-ilmenite
2000T-329	399739.69	6116073	0.33	0.22	7.65	33.81	0	5.22	0.05	36.01	13.32	96.61	Cr-spinel
2000T-329	399739.69	6116073	0.34	0	18.73	7.05	41.87	0	6.27	5.69	18.77	98.71	non-titanian Cr-pyrope (G9)
2000T-332	388402.53	6110279.5	0.19	0.06	8.89	25.84	0.13	3.23	0	47.57	13.89	99.8	Cr-spinel
2000T-336	386319.13	6111064.5	0.16	0.18	15.13	18.82	0.07	1.99	0.1	50.68	10.08	97.22	Cr-spinel
2000T-337	382498.38	6109258	0.53	0.07	16.93	7.55	41.59	0.11	6.34	8.4	18.72	100.24	non-titanian Cr-pyrope (G9)
2000T-340	378880.78	6116494.5	0.26	0	16.18	23.74	0.04	1.28	0	45.61	12.54	99.66	Cr-spinel
2000T-342	380948.22	6114359.5	0.21	0.11	17.74	33.15	0.08	0.76	0	42.75	4.44	99.25	Cr-spinel
2000T-342	380948.22	6114359.5	0.07	0.03	0.06	87.38	0.02	0.01	0.08	0	0.19	87.84	hematite
2000T-342	380948.22	6114359.5	0.4	0	0.06	34.36	0	49.29	0	3.92	10.96	98.98	Mg-ilmenite
2000T-342	380948.22	6114359.5	0.17	0.02	0.13	32.58	0.06	52.35	0	2.37	11.85	99.32	Mg-ilmenite
2000T-342	380948.22	6114359.5	0.12	0	32.11	15.1	0	0.39	0.06	37.45	13.39	98.63	spinel
2000T-342	380948.22	6114359.5	0	0.04	30.65	16.39	0.14	0.71	0	35.16	17.05	100.13	spinel
2000T-344	374923.78	6117839.5	0.2	0	8.22	26.65	0.17	3.26	0	46.25	12.85	97.59	Cr-spinel
2000T-344	374923.78	6117839.5	0.26	0.1	18.85	23.94	0	0.18	0	45.76	9.92	99.02	Cr-spinel
2000T-344	374923.78	6117839.5	0.3	0.02	0	35.08	0	49.26	0.03	2.45	10.98	98.12	Mg-ilmenite
2000T-346	370761.88	6118036	0.06	0	17.07	19.87	0.14	1.31	0	47.14	15.59	101.18	Cr-spinel
2000T-346	370761.88	6118036	0.23	0.04	0.1	31.74	0	53.14	0	2.03	12.39	99.66	Mg-ilmenite
2000T-347	372443.16	6117141	0.3	0	9.73	30.6	0	3.46	0	42.37	10.79	97.25	Cr-spinel
2000T-347	372443.16	6117141	0.27	0.04	20.54	7.47	41.87	0.23	4.84	4.18	20.54	99.98	non-titanian Cr-pyrope (G9)
2000T-354	392236.41	6123705.5	0.25	0	7.46	25.17	0.11	2.98	0	48.36	13.85	98.18	Cr-spinel
2000T-354	392236.41	6123705.5	0.39	0	14.83	23.26	0	0.42	0.02	49.57	11.88	100.36	Cr-spinel
2000T-354	392236.41	6123705.5	0.14	0	8.03	29.85	0.02	3.73	0	43.21	13.59	98.58	Cr-spinel
2000T-354	392236.41	6123705.5	0.21	0.04	0.25	32.19	0	52.88	0	2.31	11.27	99.16	Mg-ilmenite
2000T-356	378960.09	6100575	0.34	0.16	19.83	6.73	42.78	0.22	4.54	3.4	20.85	98.85	non-titanian Cr-pyrope (G9)
2000T-356	378960.09	6100575	0.38	0.03	17.61	7.22	41.46	0.15	5.7	8.23	19.09	99.88	non-titanian Cr-pyrope (G9)
2000T-357	382146.16	6101546.5	0.59	0	0	48.77	0	48.71	0	0.21	0.28	98.56	ilmenite
2000T-357	382146.16	6101546.5	0.21	0	0.61	40.31	0	45.53	0	0.77	9.47	96.92	Mg-ilmenite
2000T-358	384700.47	6100007.5	0.44	0	0.06	34.05	0	52.03	0	2.37	11.11	100.06	Mg-ilmenite
2000T-361	376265.22	6096775.5	0.1	0.22	17.63	26.82	0.06	2.27	0	37.85	14.15	99.1	Cr-spinel
2000T-362	380254.41	6098643	0.18	0.04	17.96	19.08	0	0.1	0	49.48	12.59	99.44	Cr-spinel
2000T-364	382689.63	6104796	0.08	0	18.76	14.53	0	0.19	0	52.63	14.74	100.93	Cr-spinel
2000T-366	376100.69	6107566.5	0.21	0	10.14	24.31	0	0.25	0	54.06	10.43	99.39	Cr-spinel
2000T-366	376100.69	6107566.5	0.33	0	0.41	35.58	0	51.65	0	0.51	9.83	98.31	Mg-ilmenite
2000T-368	375676.59	6109114.5	0 23	0	20.72	6.77	42.45	0.25	5.41	4.9	20.44	101.17	non-titanian Cr-pyrope (G9)
2000T-368	375676.59	6109114.5	0.34	0	21.47	8.55	42.27	0.23	4.61	3.41	20.57	101.44	non-titanian Cr-pyrope (G9)

Table 3: Kimberlite indicator mineral chemistry and classification. (continued)

Mineral Chemistry (0.5 mm)

Sample	Easting	Northing	MnO	Na_2O	Al_2O_3	FeO	SiO_2	TiO_2	CaO	Cr_2O_3	MgO	TOTAL	Classification
2000T-15	385545.63	6095757	0.26	0	17.81	16.17	0.03	0.29	0	51.69	14.23	100.47	Cr-spinel
2000T-17	388099.72	6092595	0.39	0.25	0.2	33.74	0	52	0	2.28	11.56	100.42	Mg-ilmenite
2000T-19-BS	415121.31	6114549	0.32	0	0.37	29.72	0.07	51.75	0.01	3.16	12.47	97.87	Mg-ilmenite
2000T-21-BS	411487.41	6115553.5	0.38	0.03	23.74	9.09	41.98	0.29	4.37	0.37	20.24	100.49	garnet
2000T-28	392562.69	6091566	0.2	0	17.45	14.47	0	0.2	0.01	52.71	14.71	99.76	Cr-spinel
2000T-28	392562.69	6091566	0.14	0.14	18.4	15.39	0.06	0.32	0.01	51.9	14.94	101.29	Cr-spinel
2000T-28	392562.69	6091566	1.85	0.33	7.83	37.43	0.21	4.35	0.03	45.71	0.35	98.09	Cr-spinel
2000T-32-BS	386554.5	6097484	0.37	0	17.93	7.34	41.09	0.31	6.11	6.91	20.73	100.79	titanian Cr-pyrope (G11)
2000T-32-BS	386554.5	6097484	0.42	0	20.73	7.42	42.3	0.04	4.9	3.71	20.28	99.79	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.6	0.09	21.71	8.17	42.11	0.02	4.63	3.47	19.41	100.2	non-titanian Cr-pyrope (G9)
2000T-32-BS	386554.5	6097484	0.49	0.06	20.34	7.67	40.94	0.08	4.73	5.16	20.86	100.32	non-titanian Cr-pyrope (G9)/(G10)
2000T-32-BS	386554.5	6097484	0.51	0.16	17.87	7.86	41.78	0.48	5.66	8.01	18.52	100.84	titanian Cr-pyrope (G11)
2000T-32-BS	386554.5	6097484	0.3	0	0.19	33.86	0	52.65	0.01	2.32	10.36	99.67	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.3	0	0.24	34.56	0.01	50.87	0.04	4.03	11.2	101.29	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.2	0.2	0.8	29.27	0	54.38	0.01	1.47	13.74	100.06	Mg-ilmenite
2000T-32-BS	386554.5	6097484	0.36	0.2	0.21	33.48	0	51.63	0	2.49	11.87	100.24	Mg-ilmenite
2000T-35	386267.97	6101746.5	0.71	0	22.4	11.81	40.83	0.04	4.82	1.32	18.97	100.9	non-titanian Cr-pyrope (G9)
2000T-36	385510.63	6100612	0.32	0.15	0.24	31.72	0.01	51.99	0.05	2.16	12.5	99.13	Mg-ilmenite
2000T-36	385510.63	6100612	0.15	0.19	16.38	13.89	0.04	0.15	0.02	53.06	14.74	98.63	Cr-spinel
2000T-49	396828.66	6100814	0.36	0.24	16.07	18.13	0	0.29	0.01	50.96	13.54	99.6	Cr-spinel
2000T-52	400768.63	6096955.5	0.22	0	4.4	31.52	0	2.77	0.02	52.36	9.05	100.34	Cr-spinel
2000T-54	402068.5	6097093.5	0.32	0.1	0.13	33.83	0.01	50.51	0.02	3.12	11.13	99.17	Mg-ilmenite
2000T-56	397265.06	6103193	0.27	0.2	0.52	30.58	0	52.5	0	2.44	12.64	99.15	Mg-ilmenite
2000T-85	402062.69	6103060.5	0.26	0.15	0.28	30.81	0.01	51.06	0.01	4.9	11.69	99.16	Mg-ilmenite
2000T-99	391068.38	6094189	0.42	0.09	19.31	8.8	42.85	0.45	4.27	3.44	21.03	100.65	titanian Cr-pyrope (G1)/(G10)
2000T-101	393612.16	6097352	0.3	0	0.19	33.8	0	50.53	0.02	3.95	10.8	99.59	Mg-ilmenite
2000T-103	391819.38	6096113	0.45	0.15	20.39	8.05	41.72	0.2	4.63	2.89	21.34	99.83	non-titanian Cr-pyrope (G9)
2000T-109	386132.81	6096368	0.35	0	0.09	34.29	0.04	50.52	0.04	2.59	10.79	98.72	Mg-ilmenite
2000T-122	390079.06	6098127	0.32	0	18.88	27.79	0.06	0.31	0	46.02	7.78	101.16	Cr-spinel
2000T-124	391713.34	6098945.5	0.39	0.03	18.72	7.5	40.9	0.38	5.3	5.99	19.85	99.05	titanian Cr-pyrope (G11)
2000T-129	391955.44	6103866	0.26	0	0.21	33.62	0	50.08	0.02	3.03	11.32	98.54	Mg-ilmenite
2000T-150-BS	402269.28	6106540	0.26	0	0.37	29.09	0.07	53.6	0	2.87	13.18	99.44	Mg-ilmenite
2000T-150-BS	402269.28	6106540	0.35	0.1	15.16	26.19	0	0.25	0.01	48.09	9.52	99.67	Cr-spinel
2000T-155	405182.97	6109662.5	0.81	0	7.8	38.41	0.06	5.73	0.02	34.92	10.72	98.47	Cr-spinel
2000T-156-BS	402443.84	6108400.5	0.45	0	20.44	7.59	40.76	0.12	4.83	4.05	20.75	99.01	non-titanian Cr-pyrope (G9)
2000T-160	399579.41	6108137	0.36	0	20.16	7.08	41.9	0.09	5.3	5.55	19.53	99.99	non-titanian Cr-pyrope (G9)
2000T-160	399579.41	6108137	0.24	0	20.18	18.62	0	0.11	0	45.62	13.34	98.11	Cr-spinel
2000T-163-BS	407938.84	6110567.5	0.34	0.05	0.22	28.12	0.1	52.27	0.01	5.27	13.41	99.79	Mg-ilmenite
2000T-166	406114.34	6111079	0.36	0.1	0.06	33.4	0	49.5	0.01	3.23	12.16	98.82	Mg-ilmenite
2000T-175-BS	388265.75	6102950	0.39	0	19.96	7.47	41.06	0.21	5.38	5.94	19.68	100.09	non-titanian Cr-pyrope (G9)
2000T-175-BS	388265.75	6102950	0.29	0	0.33	32.25	0	51.27	0.03	2.63	11.37	98.17	Mg-ilmenite
2000T-175-BS	388265.75	6102950	0.29	0.05	0.3	33.44	0.01	51.18	0.03	2.97	11.13	99.39	Mg-ilmenite
2000T-175-BS	388265.75	6102950	0.37	0	0.35	30.24	0	51.97	0	4.81	12.86	100.6	Mg-ilmenite
2000T-175-BS	388265.75	6102950	0.35	0	0.35	33.4	0.01	52.68	0	2.39	11.26	100.45	Mg-ilmenite
2000T-175-BS	388265.75	6102950	0.28	0	10.83	21.53	0.01	0.2	0	55.27	11.17	99.29	Cr-spinel
2000T-177	386911.66	6102253	0.3	0.09	19.24	7.39	41.31	0.3	5.58	5.93	19.74	99.9	titanian Cr-pyrope (G11)
2000T-203	377759.09	6103205.5	0.17	0	17.18	13.86	0	0.28	0	53.93	15.48	100.89	Cr-spinel
2000T-204	379288.84	6099045.5	0.43	0	0.21	34.75	0	50.82	0.01	3.42	10.29	99.93	Mg-ilmenite
2000T-209	377791.78	6097599.5	0.35	0.15	0.24	29.85	0	54.03	0	3	13.06	100.68	Mg-ilmenite
2000T-214	380459.88	6105602	0.25	0	0.22	36.53	0	48.68	0.01	3.28	10.45	99.42	Mg-ilmenite
2000T-215	377864.75	6104760	0.42	0.1	18.62	26.02	0.01	0.36	0	44.63	9.21	99.38	Cr-spinel
2000T-217	390236.81	6110548.5	0.4	0.2	0	33.86	0	49.03	0	3.44	10.59	97.52	Mg-ilmenite
2000T-220	381027.66	6110614	0.38	0	0.11	33.85	0	51.07	0	2.65	10.47	98.54	Mg-ilmenite

Table 3: Kimberlite indicator mineral chemistry and classification. (continued)

Mineral Chemistry (0.5 mm)

Sample	Easting	Northing	MnO	Na_2O	Al_2O_3	FeO	SiO_2	TiO_2	CaO	Cr_2O_3	MgO	TOTAL	Classification
2000T-220	381027.66	6110614	0.33	0	0.2	32.17	0	52.84	0	2.23	12.1	99.87	Mg-ilmenite
2000T-220	381027.66	6110614	0.26	0.2	0.69	34.15	0.01	50.21	0.02	1.66	10.34	97.54	Mg-ilmenite
2000T-222	379349.53	6108925	0.32	0.2	0.2	31.02	0.07	50.7	0	4.88	12.16	99.55	Mg-ilmenite
2000T-222	379349.53	6108925	0.33	0.09	20.8	17.35	0.06	0.16	0	46.37	14.7	99.86	Cr-spinel
2000T-225	379465.34	6111668.5	0.26	0	0.48	34.64	0.04	51.58	0	0.68	10.91	98.59	Mg-ilmenite
2000T-231	382258.53	6113338.5	0.5	0.05	11.18	27.31	0	0.3	0	52.25	7.53	99.13	Cr-spinel
2000T-241	382370.5	6117084.5	0.36	0	0.33	33.4	0	50.59	0.02	2.77	10.88	98.35	Mg-ilmenite
2000T-242	381725.97	6118149.5	0.44	0	0.02	31.83	0	52.69	0	2.93	12.04	99.95	Mg-ilmenite
2000T-248	387894.78	6122519	0.36	0	14.16	28.72	0	0.27	0	46.39	7.99	97.88	Cr-spinel
2000T-249	386461.28	6122755	0.16	0.05	18.18	13.43	0	0.27	0	52.48	14.7	99.25	Cr-spinel
2000T-252	390174.03	6112731	0.25	0	0.26	32.62	0.07	51.9	0.03	1.91	11.59	98.63	Mg-ilmenite
2000T-252	390174.03	6112731	0.24	0	0.15	31.32	0	53.64	0	1.64	12.17	99.17	Mg-ilmenite
2000T-255	398099.66	6117886.5	0.29	0	19.1	16.1	0.04	0.16	0	49.36	14.75	99.82	Cr-spinel
2000T-257	403015.22	6118430	0.24	0	0.37	29.17	0.03	54.84	0	2.32	12.48	99.45	Mg-ilmenite
2000T-258	401426.78	6118891	0.68	0.11	17.58	33.26	0	0.11	0	40.23	5.24	97.21	Cr-spinel
2000T-277	376521.69	6112449.5	0.45	0	19.96	7.66	42.68	0.22	4.93	4.71	20.22	100.83	non-titanian Cr-pyrope (G9)
2000T-278	375920.22	6119958.5	0.25	0.3	0.3	32.49	0.03	51.76	0	2.99	11.23	99.33	Mg-ilmenite
2000T-282	374344.63	6110827.5	0.21	0	0.32	26.96	0	54.02	0	2.65	15.82	99.98	Mg-ilmenite
2000T-284	371076.44	6112518.5	0.66	0	21.27	8.8	41.24	0	5.05	3.02	19.3	99.34	non-titanian Cr-pyrope (G9)
2000T-290	382417.03	6114793	0.69	0.11	4.44	45.51	0	5.3	0	34.16	6.88	97.09	Cr-spinel
2000T-295	390772.88	6115942.5	0.2	0	0.39	39.74	0.04	46.7	0.03	1.18	8.8	97.08	Mg-ilmenite
2000T-319	392888.03	6114085	0.34	0	0.2	36.73	0.04	49.55	0.05	2.78	9.11	98.8	Mg-ilmenite
2000T-320	393461.94	6117975	0.35	0	19.16	7.07	41.19	0.11	5.24	6.65	21.01	100.77	non-titanian Cr-pyrope (G9)/(G10)
2000T-341	378317	6120022	0.55	0.16	22.87	8.36	40.58	0	5.73	2.99	18.67	99.92	non-titanian Cr-pyrope (G9)
2000T-341	378317	6120022	0.47	0.06	19.33	8.06	41.93	0.08	5.77	6	19.75	101.45	non-titanian Cr-pyrope (G9)
2000T-342	380948.22	6114359.5	0.27	0	0.24	33.79	0	50.19	0.03	3.54	10.98	99.04	Mg-ilmenite
2000T-345	373345.66	6119686.5	0.4	0.16	0.05	35.66	0	47.77	0.03	4.06	10.19	98.31	Mg-ilmenite
2000T-348	370122.25	6116112.5	1.29	0.17	0.35	47.67	0.1	50.56	0	0.02	0.43	100.58	Mg-ilmenite
2000T-348	370122.25	6116112.5	0.12	0.19	17.39	14.56	0.16	0.25	0	51.65	14.18	98.5	Cr-spinel
2000T-362	380254.41	6098643	0.51	0.05	0.7	42.72	0.03	46.59	0.01	0	6.66	97.27	Mg-ilmenite
2000T-362	380254.41	6098643	0.26	0.05	9.39	38.76	0.1	6.37	0	27.86	15.03	97.83	Cr-spinel
2000T-364	382689.63	6104796	0.24	0.15	0.35	31.8	0	52.14	0	2.39	12.51	99.58	Mg-ilmenite
2000T-367	378498.88	6109643	0.05	4.1	3.05	2.81	54.48	0.1	16.52	3.6	14.37	99.08	non-titanian Cr-pyrope (G9)

Mineral Chemistry (1 mm)

Sample	Easting	Northing	MnO	Na_2O	Al_2O_3	FeO	SiO_2	TiO_2	CaO	Cr_2O_3	MgO	TOTAL	Classification
2000T-27	387695.53	6094386	0.42	0	0.15	37.59	0	48.56	0	3.07	9.3	99.08	Mg-ilmenite
2000T-96	386122.09	6093126.5	0.33	0.25	0.3	30.99	0	52.16	0	4.49	11.45	99.97	Mg-ilmenite
2000T-137	398893.06	6102443.5	0.34	0.03	21.21	7.64	42.88	0.17	4.65	4.28	20.21	101.42	non-titanian Cr-pyrope (G9)
2000T-267	375915.06	6116255	0.32	0	0.5	32.25	0.1	52.14	0	2.35	12.5	100.17	Mg-ilmenite
2000T-352	394480.94	6124486	0.43	0.05	0.24	33.92	0	50.75	0	3.14	11.64	100.17	Mg-ilmenite

Table 4: Summary of indicator mineral abundances at each site in the northern half of the Knee Lake greenstone belt.

Sample	Easting	Northing	Mg-Ilmenite	Cr-spinel	Cr-Diopside	G9	G10	Ti-Cr Pyrope	Diamond Inclusion Cr-Spinel	TOTAL
2000T-1	376811.6	6095036.0	1							1
2000T-12	386406.8	6094751.5		1						1
2000T-14	384536.3	6095146.5	1							1
2000T-15	385545.6	6095757.0	1	4						5
2000T-16	389243.6	6093479.0		1						1
2000T-17	388099.7	6092595.0	2	1						3
2000T-19-BS	415121.3	6114549.0	1							1
2000T-20-BS	409717.8	6111834.5				1				1
2000T-21-BS	411487.4	6115553.5	12	63		2		1		78
2000T-22-BS	408616.0	6114290.5		1		3		1		5
2000T-26	386632.3	6093907.5		1						1
2000T-27	387695.5	6094386.0	1	1						2
2000T-28	392562.7	6091566.0		3						3
2000T-30	387156.6	6099410.5				1				1
2000T-32-BS	386554.5	6097484.0	18	12		14	1	5		50
2000T-35	386268.0	6101746.5		1		1			1	3
2000T-36	385510.6	6100612.0	1	1						2
2000T-37	394285.8	6088654.0					1			1
2000T-38	394987.1	6089686.5		1						1
2000T-43	399444.1	6096834.0	1	1						2
2000T-44	396369.2	6096019.0	2							2
2000T-49	396828.7	6100814.0		1						1
2000T-51	393755.5	6100100.5	1							1
2000T-52	400768.3	6096955.5		1						1
2000T-53	399544.7	6095816.5								0
2000T-54	402068.5	6097093.5	1							1
2000T-56	397265.1	6103193.0	2			1				3
2000T-58	395716.9	6102027.5		1						1
2000T-60	395773.4	6101007.0		1						1
2000T-61	392900.0	6100991.0		1		1				2
2000T-66	394714.1	6096812.0		1						1
2000T-68-BS	399084.1	6101491.0	7	10		1				18
2000T-69	398290.3	6099503.5		2						2
2000T-73	402783.0	6105930.5	1	1						2
2000T-83	408701.5	6106066.5		1						1
2000T-85	402062.7	6103060.5	1							1
2000T-90	391117.8	6091481.5	1	2		1				4
2000T-92-BS	391102.8	6092944.5	1			2	1	1		5
2000T-93	389781.9	6092662.0					1			1
2000T-94	389081.1	6092532.0	1	1			1			3
2000T-96	386122.1	6093126.5	1							1
2000T-99	391068.4	6094189.0					1			1
2000T-100	390771.8	6095004.0	1							1
2000T-101	393612.2	6097352.0	1							1
2000T-102	392650.4	6096653.0	2	3						5
2000T-103	391819.4	6096113.0	8	4	1	5		2		20
2000T-104	390131.4	6099288.5		1				1		2
2000T-105-BS	390189.0	6100414.5				1				1
2000T-107	388936.9	6101455.5		2						2
2000T-109	386132.8	6096368.0	1	1						2
2000T-112	392762.5	6099792.5	1	1						2
2000T-118	391438.4	6097052.0				1				1
2000T-120-BS	388195.3	6096944.0				2				2
2000T-122	390079.1	6098127.0		1						1
2000T-123-BS	391854.4	6098769.0		2		1				3
2000T-125	388349.8	6102123.5		1						1
2000T-127	390127.2	6103821.5		2						2
2000T-129	391955.4	6103866.0	2					1		3
2000T-133	395632.9	6104304.5		2						2
2000T-135	398475.9	6100648.5		1						1
2000T-136	397807.0	6101720.0		1						1
2000T-137	398893.1	6102443.5				1				1
2000T-139	401013.9	6102969.0		1				1		2
2000T-140	396582.2	6102405.0		1						1
2000T-144-BS	399564.0	6104786.0					1			1

Table 4: Summary of indicator mineral abundances at each site in the northern half of the Knee Lake greenstone belt. (continued)

Sample	Easting	Northing	Mg-Ilmenite	Cr-spinel	Cr-Diopside	G9	G10	Ti-Cr Pyrope	Diamond Inclusion Cr-Spinel	TOTAL
2000T-150-BS	402269.3	6106540.0	3	11		3	2	1		20
2000T-153	403857.4	6108381.0		1						1
2000T-155	405183.0	6109662.5		1						1
2000T-156-BS	402443.8	6108400.5		1		1				2
2000T-158-BS	401627.1	6107942.5			1	1				2
2000T-159	401165.0	6107954.5		1						1
2000T-160	399579.4	6108137.0		1		1				2
2000T-161	409504.0	6110965.5		1				1		2
2000T-163-BS	407938.8	6110567.5	1							1
2000T-166	406114.3	6111079.0	2	2		2	1			7
2000T-167	404689.6	6110332.0		1						1
2000T-172-BS	387049.2	6098700.5	1							1
2000T-175-BS	388265.8	6102950.0	6	4		3		1		14
2000T-176-BS	387771.9	6102468.5	2	2	1					5
2000T-177	386911.7	6102253.0		3				1		4
2000T-178	383961.5	6096975.0		1						1
2000T-180	383572.2	6099390.0					1			1
2000T-182	385706.3	6102721.0	1	1						2
2000T-201	376329.1	6099848.5	1	2						3
2000T-203	377759.1	6103205.5		1						1
2000T-204	379288.8	6099045.5	2	1						3
2000T-205	377938.8	6100685.0	2							2
2000T-206	376715.9	6102116.0		1						1
2000T-209	377791.8	6097599.5	2							2
2000T-210	378771.6	6097898.5		1						1
2000T-211	386750.1	6103960.5	1							1
2000T-213	381556.8	6105384.5								0
2000T-214	380459.9	6105602.0	1	1						2
2000T-215	377864.8	6104760.0		1						1
2000T-216	383573.2	6109146.5		1						1
2000T-217	390236.8	6110548.5	1							1
2000T-218	389764.0	6111144.0	1	1						2
2000T-219	390098.2	6111950.0		1						1
2000T-220	381027.7	6110614.0	3							3
2000T-222	379349.5	6108925.0	1	1						2
2000T-225	379465.3	6111668.5	1							1
2000T-228	386397.9	6109043.5		2						2
2000T-231	382258.5	6113338.5		1						1
2000T-234	392301.8	6112182.5				1				1
2000T-241	382370.5	6117084.5	1							1
2000T-242	381726.0	6118149.5	1	3						4
2000T-246	389829.2	6119804.5	1							1
2000T-247	387542.1	6120739.5								0
2000T-248	387894.8	6122519.0		1						1
2000T-249	386461.3	6122755.0		1						1
2000T-252	390174.0	6112731.0	2	4						6
2000T-253	395615.2	6113826.5	1	2						3
2000T-254	396711.6	6114399.0		1						1
2000T-255	398099.7	6117886.5		3						3
2000T-256	403018.8	6120422.0		1						1
2000T-257	403015.2	6118430.0	1							1
2000T-258	401426.8	6118891.0		1						1
2000T-259	394433.8	6120179.5	1	1						2
2000T-260	392810.2	6120480.5		1						1
2000T-261	395856.1	6121526.0		1						1
2000T-262	382201.8	6113313.0						1		1
2000T-264	380485.7	6115711.5				1				1
2000T-267	375915.1	6116255.0	1							1
2000T-268	378764.0	6115647.0	1							1
2000T-273	379539.1	6113473.0	1			1				2
2000T-274	378643.4	6113610.0	2							2
2000T-277	376521.7	6112449.5		1		1				2
2000T-278	375920.2	6119958.5	1	1						2
2000T-280	377783.3	6117499.5	1	1		1		1		4
2000T-282	374344.6	6110827.5	2							2

Table 4: Summary of indicator mineral abundances at each site in the northern half of the Knee Lake greenstone belt. (continued)

Sample	Easting	Northing	Mg-Ilmenite	Cr-spinel	Cr-Diopside	G9	G10	Ti-Cr Pyrope	Diamond inclusion Cr-Spinel	TOTAL
2000T-283	372750.4	6110253.5	1							1
2000T-284	371076.4	6112518.5		1		1				2
2000T-289	377610.8	6110969.0		2						2
2000T-290	382417.0	6114793.0		3			1			4
2000T-291	383696.4	6115010.5		1						1
2000T-294	388431.3	6117653.0	1							1
2000T-295	390772.9	6115942.5	2	2						4
2000T-299	389554.7	6118795.5		1						1
2000T-303	399031.3	6117196.5		1						1
2000T-305	394394.1	6121113.0	1							1
2000T-310	386862.4	6121457.5		1						1
2000T-312	401764.1	6124868.0		1						1
2000T-316	393563.5	6115607.5	1							1
2000T-317	395119.6	6116693.0	2							2
2000T-319	392888.0	6114085.0	1							1
2000T-320	393461.9	6117975.0		1			1			2
2000T-324	405468.6	6118863.5				1				1
2000T-326	403152.3	6115757.5		2						2
2000T-327	401644.2	6117724.0	1	3						4
2000T-329	399739.7	6116073.0	1			1				2
2000T-332	388402.5	6110279.5		1						1
2000T-336	386319.1	6111064.5		1						1
2000T-337	382498.4	6109258.0				1				1
2000T-340	378880.8	6116494.5		1						1
2000T-341	378317.0	6120022.0		2						2
2000T-342	380948.2	6114359.5	3	1						4
2000T-344	374923.8	6117839.5	1	2						3
2000T-345	373345.7	6119686.5	1							1
2000T-346	370761.9	6118036.0	1	1						2
2000T-347	372443.2	6117141.0		1		1				2
2000T-348	370122.3	6116112.5	1	1						2
2000T-352	394480.9	6124486.0	1							1
2000T-354	392236.4	6123705.5	1	3						4
2000T-356	378960.1	6100575.0				2				2
2000T-357	382146.2	6101546.5	1							1
2000T-358	384700.5	6100007.5	1							1
2000T-361	376265.2	6096775.5		1						1
2000T-362	380254.4	6098643.0	1	2						3
2000T-364	382689.6	6104796.0	1	1						2
2000T-366	376100.7	6107566.5	1	1						2
2000T-367	378498.9	6109643.0				1				1
2000T-368	375676.6	6109114.5				2				2

Table 5: Summary of kimberlite indicator mineral (KIM) grains, 2000 survey, northern Knee Lake greenstone belt.

Cr-Spinel	Diamond Inclusion Cr-Spinel	Cr-Diopside	G9	G10	Ti-Cr Pyrope	Mg-Ilmenite	Total KIM
252	1	3	69	13	19	148	505

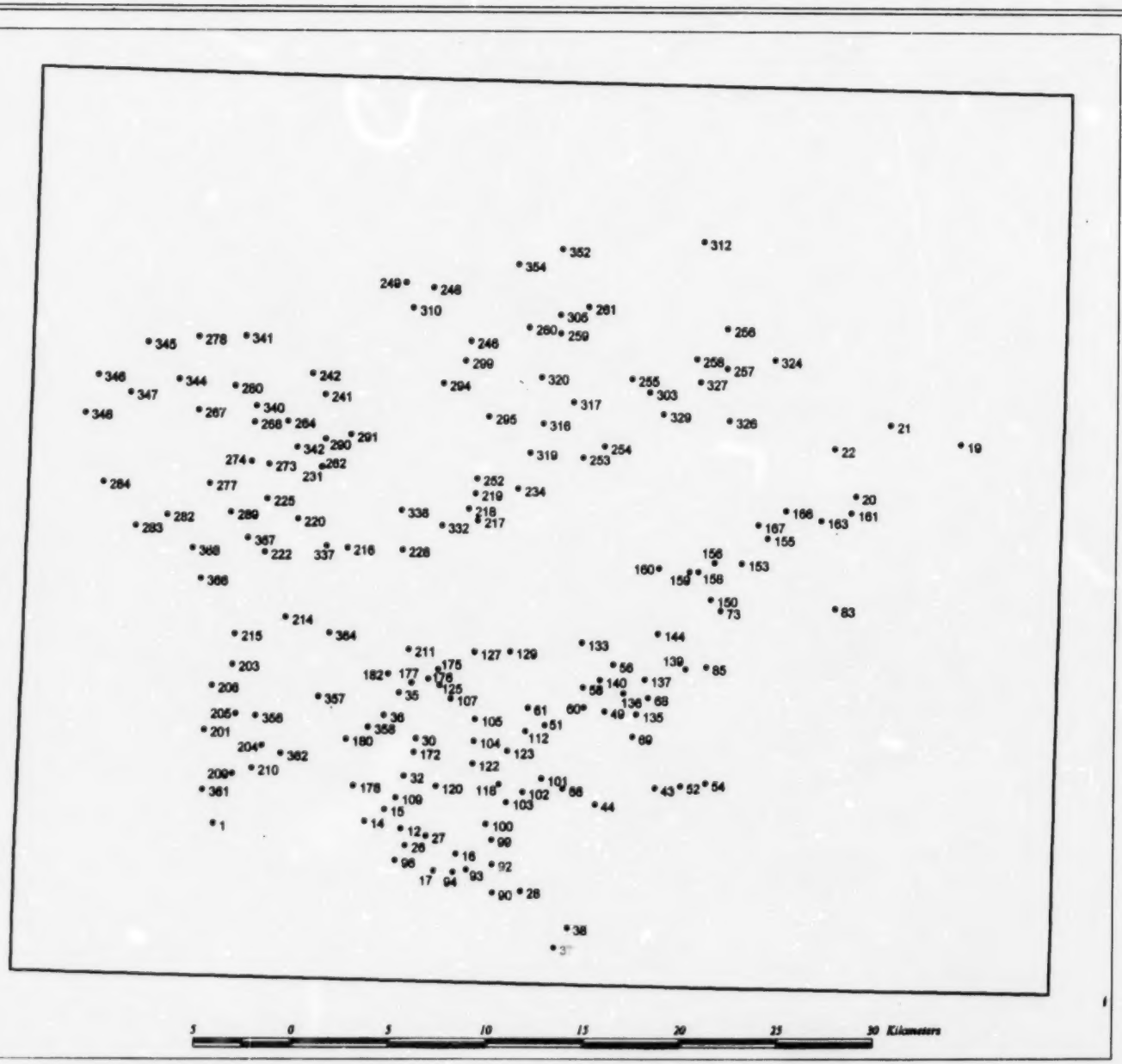


Figure 2b: Sample location mylar for the 2000 kimberlite indicator mineral survey, northern Knee Lake greenstone belt.